# IOTA 2025

## Database Support Document

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## About AVIXA

AVIXA® is the Audiovisual and Integrated Experience Association, producer of InfoComm trade shows around the world, co-owner of Integrated Systems Europe, and the international trade association representing the audiovisual industry.  Established in 1939, AVIXA has more than 11,400 enterprise and individual members, including manufacturers, systems integrators, dealers and distributors, consultants, programmers, live events companies, technology managers, content producers, and multimedia professionals from more than 80 countries. AVIXA members create integrated AV experiences that deliver outcomes for end users. AVIXA is a hub for professional collaboration, information, and community, and is the leading resource for AV standards, certification, training, market intelligence, and thought leadership.

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# IOTA 2025 - Executive Summary

## NAVIGATING A SHIFTING LANDSCAPE: TARIFFS, TECHNOLOGY, AND TRANSFORMATION IN THE GLOBAL PRO AV MARKET (2025-2030)

The Pro AV landscape is undergoing significant transformation, shaped by geopolitical pressures, rapid technological evolution, and shifting end-user demands in the post-pandemic era.

The Pro AV market is experiencing a decisive inflection point as cloud services significantly outpace traditional content management hardware, with cloud solutions growing at 6.1% CAGR through 2030 compared to just 2.1% for Content Management Hardware, highlighting the industry's accelerating shift toward software-defined infrastructure. This transition is further evidenced by standalone software's robust 7.8% CAGR, consistently outperforming hardware-centric segments.

The Pro AV market is experiencing significant shifts with Managed Services and Maintenance projected to grow at a robust 9.5% CAGR through 2030, driven by Conferencing/Collaboration and Learning sectors and Security/Surveillance, alongside increasing AVoIP adoption. This growth is fueled by the rising complexity of AV networks with more endpoints requiring specialized management, creating substantial opportunities for service providers as organizations implement IT-style practices for their increasingly sophisticated AV infrastructure.

Several significant restatements have impacted the forecast, including cloud services growth for 2023 being revised from 7.4% to 2.6% after major vendors restated their results, while video conferencing systems data was similarly adjusted downward.

### Market Factors Influencing Recent Trends

The Pro AV market is navigating a complex environment characterized by several key factors:

- **Geopolitical and Economic Uncertainty:** The most significant near-term factor is the US "Reciprocal Tariff" policy effective April 2025, which imposes substantial tariffs on hardware imports, drastically altering manufacturing and supply chain dynamics. This policy, coupled with broader macroeconomic uncertainties and potential recessionary concerns, is creating significant planning challenges and impacting pricing and demand across various hardware categories like displays, cameras, lighting, and computing components. Policy fluidity adds another layer of complexity, requiring strategic hedging and supply chain flexibility.
- **Post-Pandemic Market Normalization:** Following years of accelerated growth driven by pandemic-induced needs (remote work, live event resurgence), many Pro AV segments are transitioning to more moderate, stable growth trajectories. The post-pandemic surge in Live Events and Performance/Entertainment sectors is now stabilizing, with growth rates decelerating as equipment replacement cycles normalize. High production costs, increased booking fees, and rising event insurance premiums are diverting funds away from equipment investment in these sectors.

- **Hybrid Work Models:** The persistence of hybrid work continues to shape demand, along with RTO (Return to the Office), particularly in the Conferencing and Collaboration space. There's ongoing demand for solutions supporting meeting equity, BYOD/BYOM capabilities, and equipping smaller huddle spaces, although the initial surge has tempered. This also drives demand for related technologies like cloud services, advanced cameras, and collaboration displays.
- **Budgetary Pressures and Shifting Priorities:** Spending constraints, particularly in sectors like Education and Government, are impacting growth rates. Funding is sometimes being redirected due to geopolitical tensions or changing government priorities, leading to project delays or cancellations, especially for large-scale upgrades. Corporate spending also saw softness in late 2024 and is continuing to be restrained in 2025 due to economic factors. High production costs and insurance premiums are also diverting funds from Live Events.

## Adjustments and Strategic Shifts

In response to these market factors, significant strategic shifts are underway:

- **Manufacturing Realignment:** The US tariff landscape is forcing a major strategic pivot, establishing Mexico as the key tariff-free manufacturing hub for the North American market. Companies are rapidly scaling Mexican production, reversing recent shifts to countries like Vietnam. This benefits manufacturers with existing Mexican operations but poses significant challenges for those reliant on China or Vietnam. This trend was previously observed in the physical security sector and is now accelerating across Pro AV. Supply chain diversification and manufacturing flexibility are paramount. LED video display production in the US or Mexico is also being considered.
- **Acceleration to Software and Cloud:** Tariffs on hardware are acting as a catalyst, accelerating the industry's migration towards software, cloud services (UCaaS, VSaaS, PaaS), and SaaS models, which bypass these import duties. Cloud services, particularly in Conferencing and Collaboration and Broadcast AV, are seeing robust growth (projected 6.7% growth in 2025 for overall cloud services), driven by flexibility, scalability, and the integration of AI features. This shift impacts hardware demand, notably for content management hardware like media servers and storage, where cloud alternatives are gaining traction. Standalone software is also outperforming the overall market, projected to grow 7.5% in 2025.
- **Evolving Technology Preferences:** There's a clear shift in display technology, with LED video displays (including FPP and Micro LED) rapidly gaining market share against traditional projectors and LCD video walls, driven by falling costs and performance improvements. Projector revenue is declining significantly in several segments, although high-lumen models remain relevant for specific applications like immersive experiences. In addition, after significant investment in video, focus is shifting to enhancing audio quality with technologies like immersive sound and advanced microphones. Also, AVoIP adoption continues to reshape signal distribution, replacing traditional hardware.

## Technology Drivers

Technological innovation remains a core driver of the Pro AV market:

- **Artificial Intelligence (AI):** AI is becoming pervasive and integrated into various solutions to enhance functionality, personalization, and efficiency. Key applications include AI-powered video analytics in security, intelligent features in conferencing (speaker tracking, summaries, noise cancellation), automation in broadcast and live events (sound management, camera control), personalized digital signage experiences, and operational efficiencies in control systems and lighting. AI is moving beyond basic automation to predictive analytics and enhanced user experiences.
- **Cloud Computing and Services:** As mentioned, the cloud is fundamental, enabling UCaaS, VSaaS, PaaS, cloud storage, remote management, and new service models. Security, reliability, and scalability are increasingly critical aspects of cloud adoption. The growth of cloud services (CAGR 6.1% 2025-2030) significantly outpaces many hardware segments.
- **Display Advancements (LED Video Dominance):** The rapid evolution and cost reduction of LED video technology (FPP, dvLED, MicroLED, COB, MIP) are major drivers, enabling higher resolutions, better brightness, lower power consumption, and new form factors like all-in-one (AIO) displays. LED video displays are projected for impressive growth (13.0% CAGR 2025-2030), increasingly replacing LCD videowalls and projectors.
- **AV over IP (AVoIP):** The transition to IP-based signal distribution continues, offering flexibility, scalability, and cost efficiencies over traditional matrix switchers. Protocols like NDI and Dante AV are gaining traction, although interoperability remains a challenge being addressed by gateways. Sixty-five to seventy percent of signal routing and switching equipment is expected to be IP-capable by 2027.
- **Collaboration Technologies:** Wireless presentation systems, BYOD/BYOM support, interactive flat panels (IFPs), and multi-camera setups driven by meeting equity needs continue to evolve. Integration with platforms like Microsoft Teams Rooms is often a key requirement.

## The Pro AV Regional Landscape

Regional performance varies, influenced by economic conditions, technology adoption rates, and specific vertical strengths.

### Short-Term Outlook (2025-2026):

- **North America:** Remains the largest market but shows slower growth due to maturity and higher existing adoption rates, particularly in collaboration. The tariff situation heavily influences manufacturing and pricing. Recovery in corporate spending and strong segments like security and potentially live events are key. Videoconferencing systems and cloud services are expected to see mid-to-long-term growth due to continuing upgrades of conferencing solutions. Also, some vendors are charging a premium for AI-infused collaboration tools which is supporting some revenue growth.
- **Europe:** Faces headwinds from slower economic growth, budget reallocations due to geopolitical tensions (affecting education/

government spending), and a slower security market. Growth exists, particularly in Western Europe, for event-driven upgrades, but overall expansion lags other regions.

- **Asia Pacific:** Continues to be a major growth engine driven by China and India. Digital transformation, infrastructure projects, and accelerating adoption in verticals like digital signage, retail, and transportation fuel demand. Cloud service adoption is strong and leads to overall cloud growth. However, China experienced weakness in 2024 in command/control and security markets, though recovery is expected. ASP pressure is notable.
- **Middle East and Africa:** Poised for strong short-term growth, often outpacing other regions, driven by digitalization programs (e.g., Saudi Vision 2030), infrastructure investment, and demand for displays and cloud services. Performance/Entertainment may see a temporary dip post-major sports and esports events that took place in 2024.
- **Latin America:** Shows potential for strong short-term growth, particularly in live events/entertainment upgrades. However, performance can be volatile, often tied to key economies like Brazil and Mexico, and long-term expansion may lag.

### Long-Term Outlook (2027-2030):

- **North America and Europe:** Expected to see more moderate, stable growth as markets mature and replacement cycles become more staggered. The focus will likely be on adopting next-gen technologies (AI, advanced displays, cloud services) and specific vertical applications. The shift to AVoIP and cloud may impact hardware revenues more quickly here.
- **Asia Pacific:** Forecasted to remain the fastest-growing region overall, maintaining strong momentum driven by ongoing digitalization, smart city initiatives, and growing middle-class demand. China and India are pivotal.
- **Middle East and Africa:** Expected to sustain strong, albeit potentially slightly moderating, growth fueled by continued economic diversification and technology adoption.
- **Latin America:** Growth is projected to stabilize, potentially falling behind other emerging regions after the initial short-term boost.

## Conclusion

In conclusion, the Pro AV market is at a pivotal juncture. While facing economic and geopolitical headwinds that necessitate strategic repositioning (particularly in manufacturing and supply chains), the relentless pace of technological innovation—led by AI, cloud services, and advanced LED displays—continues to create significant opportunities. Success will hinge on navigating supply chain complexities, embracing software and service models, targeting high-growth regions and applications, and delivering solutions that meet the evolving demands for enhanced collaboration, immersive experiences, and intelligent automation.

The forecast operates under the assumption that current geopolitical tensions and economic uncertainties will persist through the early forecast period (2025-2027) before gradually stabilizing in the later years (2028-2030).

The forecast acknowledges the inherent fluidity of these conditions, noting that tariff policies could change rapidly and may function as negotiating tactics. This uncertainty is factored into the conservative growth projections for 2025-2027, with more optimistic outlooks reserved for the later forecast years when adaptation to these challenges is expected to be more complete.

*Note: All figures quoted for revenue in this "Executive Summary" section are revenue with markup.*

# The Evolving Tariff Landscape and its Pro AV Context

The Pro AV market is currently navigating significant uncertainty stemming from US tariff policies, particularly the "Reciprocal Tariff" executive order effective April 2025. This order builds upon previous tariff actions and dramatically reshapes the competitive landscape for hardware manufacturing and imports. Like the residential TV market, the implications extend broadly across the Pro AV sector due to overlapping product categories (displays, components) and shared supply chains. The situation is marked by rapid shifts and considerable uncertainty, requiring strategic adaptation from vendors and buyers.

## KEY TARIFF IMPLICATIONS:

### Manufacturing Shift to Mexico:

- The most immediate and profound impact is the repositioning of Mexico as a key manufacturing hub for the US market. The Reciprocal Tariff policy imposes potentially crippling tariffs on goods from major manufacturing centers like China and Vietnam, while goods manufactured in Mexico compliant with the USMCA trade agreement can enter the US tariff-free. This reverses recent trends where companies shifted production away from China to places like Vietnam and necessitates a rapid scaling-up of Mexican production capacity. This shift was already observed in manufacturing overall and in the physical security sector, where vendors moved production to Mexico to service North America.
- Furthermore, companies are now exploring options to begin manufacturing LED video displays within the United States or Mexico. Recent announcements, such as the US doubling its tariff rate on steel imports from 25% to 50%, aim to boost the local steel industry and national output, decreasing reliance on countries like China. This indicates a potential movement of some manufacturing back to the US, particularly in sectors deemed critical, offering an advantage to manufacturers with US-based operations.

### Supply Chain Vulnerability:

- Original Equipment Manufacturers (OEMs) and brands heavily reliant on manufacturing in China or Vietnam, particularly those without established facilities or strong partnerships in Mexico, face significant competitive disadvantages and challenges. Retailer or private-label brands relying solely on these OEMs are deemed high risk. Conversely, manufacturers with existing Mexican operations are well-positioned to benefit.

### Pricing Pressure and Demand Impact:

- Significant price hikes are anticipated for Pro AV hardware imported from countries subject to high reciprocal tariffs. This affects a wide range of products where manufacturing is concentrated in Asia:

- Displays (Flat Panel/LED Video): Costs are expected to rise, particularly for products made in China or Vietnam. This could slow demand or push buyers towards premium models produced in Mexico. Concerns over tariffs impacting display prices and causing strategic inventory building were noted. The US witnessed a strategic inventory build-up in the first quarter of 2025, as many manufacturers shipped in excess products to pre-emptively avoid future tariffs or mitigate their impact. This is unlikely to continue beyond the second quarter of 2025.
- Cameras and Lenses (Production/Conferencing/Surveillance): Face notable tariff impacts depending on origin. This could increase costs significantly, possibly benefiting US-based brands or fueling the second-hand market. Increased demand for Trade Agreement Act (TAA)-compliant cameras is also likely. A product meets TAA compliance if it is manufactured or undergoes substantial transformation in the United States or a designated TAA-approved country.
- Lighting: China-based brands could face high tariffs, potentially leading buyers to seek alternatives like older technologies, US brands, or used equipment.
- Computing and Storage: Components like GPUs, CPUs, and SSDs, primarily made in tariff-affected regions, will likely see price increases. This could slow hardware refresh cycles.
- Other Hardware: Commodity items like microphones, audio/video conferencing hardware, media players, media/AV servers, and signal routing/switching gear manufactured outside North America are also subject to increased costs. While some argue that the impact on large media productions might be minimal as hardware is a small cost fraction, the broader Pro AV market, including smaller creators, corporations, and education, will likely feel the price pressure.

■ Acceleration of Software/Cloud Transition: Tariffs on hardware act as a catalyst, potentially accelerating the Pro AV industry's ongoing shift towards software, cloud services (UCaaS, VSaaS, PaaS), and SaaS models. Since software and services are generally intangible imports, they bypass these tariffs. This could drive further adoption of cloud-based collaboration platforms, video surveillance as a service (VSaaS), cloud production/workflows, and reliance on commodity hardware (COTS) running specialized software. However, dedicated hardware will remain essential for specific applications like high-end content capture and live production, where performance is critical.

■ Policy Fluidity and Strategic Hedging: The tariff situation is fluid and might be a negotiating tactic by the current US administration, and could change rapidly. This inherent uncertainty makes long-term planning difficult. While trade-related risks have diminished, uncertainty remains high, and the recent de-escalation of tariffs between the US and mainland China could re-escalate if negotiations falter. Companies are advised to maintain manufacturing flexibility across different regions (Mexico, Southeast Asia, and potentially the US), build partnerships, closely monitor policy shifts, and potentially pre-emptively build inventory as a hedge.

**Conclusion:** The current US tariff situation, particularly the Reciprocal Tariff policy, introduces significant disruption and strategic recalculation within the Pro AV market. While creating advantages for manufacturing in Mexico and the US, and accelerating the shift to software and cloud models, it also threatens to increase hardware costs across numerous product categories, potentially suppressing demand and impacting investment decisions. Navigating this complex environment requires Pro AV businesses to remain agile, diversify supply chains, monitor policy developments closely, and strategically balance hardware dependencies with the accelerating transition toward service-based solutions.

# Solutions Trends

All figures quoted for revenue in this section are revenue with markup.

## COMMAND AND CONTROL

- The Control Rooms market in North America and Europe is mature, driven primarily by upgrades or replacement projects. China, the most significant sole contributor to Command-and-Control revenue with 28% of the market share, was slow in 2024 and was affected by higher operation costs and government payment delays, leading to project postponements. The demand for LED video displays in control rooms across many developing countries in the Asia-Pacific and Latin America is currently weak. Constrained investment budgets and low market penetration are resulting in slower-than-anticipated growth in demand, while economic instability is leading to project delays.

- The market is expected to reach $22 billion in 2030, an estimated CAGR of 3.6% between 2025 and 2030, fueled by demand for video displays, cloud-based services, managed services, maintenance, and standalone software.

- The video projection segment will accelerate its decline, with revenue further dropping to $453 million in 2025 from $696 million a year earlier. Higher-cost rear-projection video cubes are being discontinued during the forecast years.

- Video Displays, especially LED screens, are rapidly replacing projectors in Command-and-Control functionality. Displays are expected to grow by 10.3% in 2025 and by an additional 12.6% in 2026.

- The escalation of data generation from increasing numbers of connected devices and technologies is changing control rooms into data-centric operational hubs. The increased requirement for data analysis is fueling demand for software and cloud-based services, expected to grow by 5.9% and 12.9%, respectively, in 2025.

- AVoIP and increasing the use of AI technology will drive down the number of hardware elements required for control rooms, simplifying solutions and introducing smarter, predictive analytics and decision-support capabilities. For example, fewer IP-KVM switchers are replacing localized traditional KVM switchers with the consequential reduction of cabling requirements.

- Asia Pacific will observe a steady growth in revenue from $7.6 billion in 2025 to $9.3 billion in 2030 over the forecast period, despite government spending on infrastructure challenges in 2025, as mentioned above. The region's share of the total market will be 41% in 2025, increasing to 43% in 2030. China is the largest contributor in the region, generating approximately 63% of the regional revenue. Overall, a rapid digital transformation pace is driving an increasing demand for advanced control room solutions, highlighting their critical role in shaping the global Pro AV market.

- Another region with strong and consistent growth is the Middle East and Africa, with an anticipated CAGR of 5.1% between 2025 and 2030, albeit only representing 4% of total revenue in 2025.

## CONFERENCING AND COLLABORATION

- The Conference and Collaboration market has entered a phase of stable growth, marked by low single-digit increases. Revenue is projected to rise from $59.0 billion in 2024 to $60.9 billion in 2025, reflecting renewed momentum as delayed video conferencing projects resume, becoming a priority in IT strategies for 2025 and 2026. A projected CAGR of 3.0% between 2025 and 2030 underscores the market's steady trajectory.

- Cloud-based collaborating tools services, representing almost 34% of Conferencing and Collaboration revenue, are expected to grow by 4.8% in 2025.

- Enterprises still relying on outdated conferencing tools, which lack the functionality needed for hybrid workforce, represent a significant market opportunity, particularly in huddle rooms and smaller meeting spaces. Omdia estimates that around 70% of the market has yet to upgrade their video conferencing solutions. However, given the high investment costs, enterprises are carefully assessing total cost of ownership before committing to large-scale upgrades, with a stronger focus on IT project prioritization.

- While huddle space deployments continue to grow in volume, the lower cost per unit limits overall revenue expansion. Future revenue growth is expected to be driven by the adoption of AI-powered features in cloud-based platforms, enabling premium pricing and enhanced functionality. .

- Wireless Collaboration Systems enabling bring-your-own-device (BYOD) and bring-your-own-meeting (BYOM), suitable for fast implementation of easy-to-use collaboration solutions in huddle spaces and small meeting rooms, are set to experience steady growth in the short term. Strong competition, with many vendors launching products, will put pressure on pricing for this type of solution.

- Projector revenue is expected to decline significantly over the forecast period, while video displays, including collaboration displays, are anticipated to achieve the highest growth rate among all product categories within this solution. Notably, LED displays are projected to grow at double-digit rates in the latter part of the forecast period.

- As demand shifts towards intelligent AI-driven meeting rooms, demand for hardware codec-based endpoints, video bars, collaboration boards, USB conference cameras, and multi-camera solutions will continue to sustain growth in the short-term, with Video Conferencing Solutions leading with over 8% growth in 2025. Yet, towards the end forecast, the market will experience diminishing growth.

- The adoption of Conferencing and Collaboration solutions in the APAC region is expected to accelerate, driven by China and India, where adoption remains lower due to less remote work and a growing need for collaboration tools amid increasing business internationalization. In contrast, North America, which currently leads in adoption rates, is projected to experience slower market growth as a mature market, where new deployments are limited and primarily focused on replacement cycles. Across

Europe, adoption varies significantly—while some countries have nearly 50% enterprise adoption of advanced solutions, others, like Germany, remain at around 25%, highlighting regional disparities in technology uptake.

## BROADCAST AV

- Broadcast AV (formerly Content Production and Streaming) transitioned from rapid growth during the COVID-19 pandemic and the immediate years after it to a forecasted period of moderate expansion. This is fueled by continued streaming adoption, in-house content creation for institutional communications, and technological innovations democratizing access. The market is projected to grow by 3.7%, reaching $44.2 billion in 2025 from $42.9 billion in 2024.

- The ongoing expansion of Live Events—including concerts, trade shows, sports events—and growth in sectors like Education, Media and Entertainment continue to drive Broadcast AV's performance. Much of the content produced at live events is also produced for later streaming and broadcasting, requiring broadcast AV solutions. Additionally, the rising adoption of digital content creation across industries further sustains this upward trajectory.

- Originally rooted in film and TV, virtual production, which gained momentum during the pandemic, is now influencing the Pro AV industry and expanding beyond entertainment into Education and Corporate. Its emphasis on immersive experiences will boost demand for high-quality audio equipment, including headsets, earsets, and microphones, essential for professionals engaging with virtual environments, as well cloud-based services.

- The shift toward software- and cloud-based video workflows and storage is driving over 11% average year-on-year growth in cloud-based services throughout the forecast period. Meanwhile, content management hardware is expected to stabilize with a more modest growth rate of approximately 1.6% year-on-year on average. Yet, this product segment will represent 51% of total Broadcast AV revenue in 2025, projected to account for Much build up for in-house content production was achieved in previous years. We expect Corporate to be focused spending on other Pro AV areas in the short term. Education has constrained budgets and will focus on much more urgent investments such as conferencing and collaboration than on equipping/upgrading in-house studios.

- In recent years, industries such as Corporate, Education, Government and the Military have invested in building in-house studios to produce content for internal and external communications and educational material. This trend has been supported by the availability of more affordable production cameras, including PTZ models. In the short term, spending on in-house equipment by the Corporate and Education sectors is expected to decline due to prior investments and budget constraints. Much of the buildup for in-house content production was achieved in previous years. We expect Corporate to be focused on spending on other Pro AV areas in the short term. Education has constrained budgets and will focus on much more urgent investments such as conferencing and collaboration than on equipping/upgrading in-house studios. However, expenditures are anticipated to rebound in the latter part of the forecast period.

- The Middle East and Africa, and Asia Pacific are showing stronger growth trends than other regions, with strong investments in digitalization programs in Saudi Arabia and other Gulf countries driving Pro AV spending. China and India are expected to drive growth in their region.

## DIGITAL SIGNAGE

- Digital Signage is projected to grow from $40.9 billion in 2024 to $42 billion in 2025, or 3.7%, compared to 4.8% in 2024. The segment is driven by the escalating demand for video displays, especially LED, and the increasing demand for cloud-based services, such as content storage, and standalone software, as well as the increasing popularity of informational screen kiosks in public spaces.
- Revenue growth for Digital Signage cloud-based services is projected to exceed 10% in 2025 and remain stable within a range of 9% to 11% throughout the forecast period. While demand for content management software persists, developing AI-powered software solutions for delivering personalized and immersive experiences will accelerate.
- Content management hardware, accounting for over 43% of Digital Signage revenue in 2024, is projected to contribute almost 38% of total Digital Signage revenue by 2030. Much of this revenue comes from media servers and storage servers, which are expected to be replaced by cloud-based functionality later in the forecast period, driving growth in cloud services.
- Advancements in computing-on-chip (SoC) technology, delivering enhanced computational power, are increasingly integrating processing capabilities into display hardware, reducing the need for standalone media players. However, media players, now featuring neuro-processing units (NPUs), will continue to support complex graphics and AI-driven features.
- Flat panel displays, forecasted to grow by 2% in 2025, are expected to begin being replaced by LED displays from 2027 onwards, as their costs decrease and they become more accessible. LED displays are anticipated to achieve an annual compound growth rate of 8.3% between 2025 and 2030. Combined, displays are expected to account for approximately 30% of total Digital Signage revenue in 2025.
- Public sector investments, especially in education digitization and government stimulus programs, are fueling growth in flat panel displays. At the same time, corporate and infrastructure projects are driving demand for videowalls and meeting room displays, particularly in China and Latin America.
- The Middle East and Africa is poised to experience the fastest growth in the short term, driven by high demand for displays and cloud-based services.

## LEARNING

- The learning solutions sector is set to maintain steady growth, with a projected 2.1% increase in 2025, slightly less than the previous year's expansion. Although education sector spending is contracting in major economies—especially in U.S. higher education due to funding freezes—market demand remains strong, driven by the ongoing replacement of COVID-era devices.
- Displays, including flat panels, TVs, monitors, projectors, and projector screens, collectively account for over 27% of the revenue generated within the learning solutions segment.
- Corporate learning programs are playing a significant role in driving growth within this segment, with widespread employee training initiatives highlighting the critical role of Pro AV hardware and software in supporting professional development.
- Market growth is further expected to be driven by innovations in cloud services, LED/laser/interactive flat panel (IFP) displays, and content management solutions.
- Emerging technologies such as AR/VR, when combined with AI, are poised to transform learning methodologies. With consistent revenue generation across regions in the AV sector, the adoption of blended learning technologies is projected to accelerate over the forecast period.

## LIVE EVENTS

- After the surge in demand for Live Events solutions in the post-pandemic years, revenue growth in this sector is decelerating. The year 2025 is expected to grow by 4.3%, compared to a 8.9% growth in 2024. The sector remains vibrant and has expanded beyond the levels of activity pre-2020. The fast equipment upgrade initiatives of recent years are expected to slow demand. Additionally, high production costs, booking fees, and increases in event insurance premiums are diverting funds from equipment investment.
- Displays have been gaining strong traction in Live Events. With the size of the displays used ever increasing, this product segment is poised to experience an 18.1% CAGR between 2025 and 2030. High-definition screens are used to enhance audience engagement and are complemented by projectors to create more immersive experiences.
- Audio equipment plays an increasingly vital role in crafting enriched experiences that captivate and immerse event audiences. Innovations in immersive sound and object-based audio are driving demand, while AI-powered features are being integrated to support sound engineers in enhancing live event productions.
- The Middle East and Africa, and Latin America are the regions expected to grow more than the average for the segment in the short term.

## PERFORMANCE/ ENTERTAINMENT

- The Performance and Entertainment sector is experiencing a deceleration, with growth projected to be 3.5% in 2025, reaching $36.9 billion, down from 5.8% in 2024. Following a period of rapid equipment replacement and upgrades in recent years, the market is now stabilizing. The segment is expected to grow at a compound annual rate of 3.9% from 2025 to 2030. The stronger drop we're seeing from 2025 onward is due mainly to the revision of the forecasts for media and storage servers. The industry invested heavily on this type of products, as content digitalization demanded it. But we had aggressive growth for the coming years in the 2024 report, a growth that we are not seeing now and needed to revise. Cloud-based solutions are replacing hardware where possible, but the revenues from this type of services do not make up for the reduction in hardware growth.

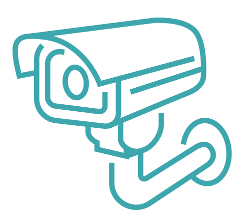
- Replacement cycles have largely been unified, post-pandemic, though they are expected to become staggered again towards the latter part of the forecast period. This segment is more affected than others by the transition to cloud-based services, which offer greater cost efficiency and flexibility. The shift of video workflows, production functionality, and content storage to the cloud is affecting hardware revenue. Additionally, AVoIP adoption is reshaping hardware demand while driving revenue growth during the forecast period.

- Much focus was placed on video during the post-pandemic years. Now the focus has shifted to elevating audio experiences to match the video quality enhancements. Innovation in immersive sound is making this possible and being brought to smaller venues thanks to innovation in form factor.

- Video projection equipment, contributing about 5% of Performance/Entertainment revenues, is projected to have a CAGR of 2% between 2025 and 2030. After a flat growth in 2025, projectors revenue will see a slight rise in the mid years of the forecast as new technologies drive replacement cycle, going back to flat growth in the later years. Direct-view displays are increasingly replacing projectors at the higher end, especially LED displays, yet high-lumens projectors remain essential for immersive audience experiences and projection mapping, which are gaining popularity.

- The Middle East and Africa are expected to underperform relative to other regions following significant investments in hosting major recent sports events. However, the region is anticipated to resume growth in 2026 and sustain it over the subsequent five years.

## SECURITY/SURVEILLANCE/ LIFE SAFETY



- The Security/Surveillance/ Life Safety market is expected to grow revenues by 7.7% in 2025, reaching $38.4 billion.

- The video surveillance market, which is the largest physical security equipment market in revenue terms, did not perform well in Asia in 2024. The Chinese market was the slowest-growing region when, historically, it was the fastest-growing one.

- The market also slowed in Europe. However, industry market growth rates have stabilized. The North American market continues to perform well, with strong market growth in video surveillance and associated physical security solutions.
- Cloud solutions are gaining market share and increasing acceptance with end-users. Video Surveillance as a Service (VSaaS) is now an established market segment, with direct to cloud cameras accounting for almost 8% of network camera revenue in 2024. Increasingly, video surveillance, access control, intruder alarms and other sensors and software are being integrated into a single pane of glass solution. This approach is also gaining a share in the enterprise market, having originally been more successful in SMB. Interestingly, much of the revenue opportunity is in the equipment required to support Physical Security as a Service (PSaaS) solution, as opposed to the service or software markets.
- Tariffs are driving shifts in physical security equipment manufacturing, prompting many vendors to relocate production from Asia to Mexico to serve the North American market. However, National Defense Authorization Act (NDAA) compliance and growing resistance to Chinese-made products in North America and Europe have also been major factors in this transition. Over the past five years, manufacturers have increasingly moved production to Vietnam and other alternative locations to navigate regulatory and market pressures.
- AI-based video analytics remain an important market opportunity for network camera equipment vendors and software providers. Solutions will continue transitioning from traditional security applications to business intelligence, marketing, and operational AI analytics use cases as acceptance grows with different end-user roles.

# Industry Trends

**ALL FIGURES QUOTED FOR REVENUE IN THIS SECTION ARE REVENUE WITH MARKUP.**

## Corporate

- The Corporate sector, the largest among the Pro AV industry, is projected to grow by 2.7%, reaching $72.5 billion in 2025. The sector is expected to underperform compared to 2024, despite many upgrade projects postponed during the latter half of the year. While short-term uncertainty persists, preliminary data indicates a revival of delayed projects, fostering optimism for Pro AV within the Corporate sector.
- Content Management Hardware, contributing about 35% of the total sector revenues, is projected to experience the steepest decline in growth rate in 2025. This reflects two significant trends: excessive spending in previous years and the transition towards cloud-based storage solutions.
- Audio solutions in the Corporate sector performed better than anticipated in 2024. A concentrated effort to elevate audio quality to match advancements in video drove demand for speakers and desktop and ceiling microphones for meeting rooms and open spaces. This trend is expected to continue as organizations enhance their meeting room audio infrastructure and technology innovation is deployed.
- Video displays are set to maintain robust growth in this sector, with demand for IFP/touch displays continuing to dominate the flat display category. LED displays are projected to outperform flat panel displays, with an estimated CAGR of 5% between 2025 and 2030, compared to 4.2% for flat panel displays.
- Signal Routing and Switching is anticipated to grow steadily at a yearly average of 2.4% between 2025 and 2030. The Corporate sector has embraced AVoIP more quickly than other industries, leveraging innovative networking technologies' cost efficiency and flexibility.

## Education

Education is witnessing a slowdown in growth, declining from 3.1% year-over-year (YoY) in 2024 to a projected 2.6% in 2025. While the sector continues to expand, the deceleration is primarily due to the suspension or cancellation of several government-funded school upgrade projects, particularly in the United States, Germany, and other European nations. Federal funding cuts are having a significant impact on higher education in the United States, affecting grants and financial support for institutions and students.

- Growth within this sector is primarily driven by increased device shipments, especially in high-value segments such as interactive technologies and AR/VR solutions.

- Significant year-on-year growth has also been observed in products that support hybrid learning models—such as LED video displays, headphones, headsets, ear sets, and collaboration systems. This trend also suggests that a device refresh cycle is underway, particularly for products acquired during the COVID-19 pandemic. Devices with shorter lifecycles are experiencing a more pronounced impact during the short-term forecast.

- Within the Education sector projector shipments are expected to return to growth starting in 2026, following a temporary decline observed from 2023 to 2025 in the post-pandemic period. This rebound is anticipated as part of the broader device refresh cycle.

- In many developed countries, public funding is redirected toward sectors more directly affected by ongoing geopolitical tensions.

## Energy and Utility

- The Energy and Utility sectors are forecasted to grow from $11.3 billion in 2024 to $11.9 billion in 2025, reflecting a 5% increase. By 2030, the sectors are expected to generate $15.1 billion in revenue. The Energy and Utility industry increasingly relies on visual and surveillance technologies, with video displays and capture equipment becoming key investment areas. By 2025, these two product segments will represent about 21% of revenue, rising to nearly 25% by 2030.

- Infrastructure investments continue to fuel demand for control room solutions. However, some industry players are focusing on non-renewable energy projects as government funding for sustainable resource infrastructure is uncertain in the Americas and Europe. As these are long-term projects, demand for control rooms is expected to materialize in the mid-to-long term.

- The growing need for data centers and data farms is driving demand for Command-and-Control solutions to support surveillance and monitoring activities.

- Digital transformation, AI integration, and technological innovation are anticipated to be pivotal drivers of advanced Pro AV solutions in the long term.

## Government and Military

- Government and Military spending are expected to grow by 4.9% in 2025, down from 5.4% in 2024 to $25.5 billion. Uncertainty in many countries' policies regarding government funding is cultivating cautiousness in this sector's growth. In contrast, geopolitical tensions are expected to increase demand for Pro AV solutions in the Military.

- The sector's stringent safety and security standards are anticipated to drive revenue growth and sustain robust demand for control systems, aligning with projected growth trends of around 6.7% on average year-year, tapering down towards 2030.

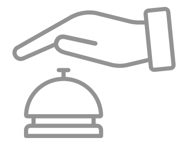
- In the mid-to-long term, the Government and Military sector is poised for steady growth fueled by the need to modernize military capabilities and embrace new technologies around collaboration tools to improve government workforce efficiency.

- In the mid-to-long term, the Government and Military sector is poised for steady growth fueled by the need to modernize military capabilities and embrace new technologies.   around cloud-based collaboration tools and
- Investments in microphones, video conferencing systems, and LED displays emphasize improving surveillance and communication, driving demand for clear audio-visual quality, advanced security, and reliable performance.

## Healthcare

- The Healthcare sector is projected to grow by 3.2% in 2025, from $8.7 billion in 2024 to nearly $9 billion. While budgetary constraints may restrict investment in Pro AV solutions, the industry continues to adopt technologies customized for healthcare facilities.
- Healthcare operations continue integrating video conferencing solutions to provide better tele-health and remote patient care, as Video Conferencing Systems are anticipated to grow by 7.6%.
- Various Digital Signage use cases, such as check-in kiosks and room displays in doctor's offices, are being deployed to improve customer experience and reduce staff workload. This drives demand for video displays, media players, and software solutions.
- The sector is set to enhance investments in high-quality video applications like patient information systems and diagnostic imaging, with spending on LED video displays expected to rise from almost 0% in 2024 to 7.6% in 2025, while flat displays continue a diminishing growth.

## Hospitality



- The hospitality industry is expected to grow by 3.6% in 2025, down from 4.9% in 2024. Growth will be fueled by hotels and restaurants enhancing audio-visual experiences to draw and retain guests. However, sector demand for Pro AV solutions is set to grow at lower rates than in the immediate post-pandemic years.
- Investment in cloud-based video communication and collaboration solutions will remain strong in the short term, with spending surpassing 10% in 2025 and 2026. Yet, growth is expected to slow to low single-digit rates in the mid-to-long term as the industry completes its shift to cloud-based solutions.
- Digital Signage solutions will remain essential for enhancing consumer experiences in the industry, supporting the consistent growth of standalone software throughout the forecast period with a CAGR for this product category of 7.5% between 2025 and 2030.
- The installation and enhancement of in-room technology are anticipated to grow, reflecting the rising demand for personalized and contactless experiences. AI, IoT, and mixed reality within Pro AV solutions will play a transformative role in redefining customer service within the industry.

## Media and Entertainment

- The Media and Entertainment sector, the second largest contributor to pro AV revenue, is projected to grow by 3.8% in 2025, compared to 6.5% in 2024, reaching $55.8 billion. Following rapid expansion between 2023 and 2024, the sector is transitioning into a stable growth phase, with an annual compound growth rate between 2025 and 2030 of 4.1%.

- The slowdown in market growth is primarily due to a sharp drop in growth rates within the Content Management Hardware segment. The period of strong growth, fueled by demand for upgrades and a fast increase in activity in the sector, has shifted to a more stable phase, with year-on-year growth stabilizing at approximately 2%. This trend reflects a migration towards cloud-based services for delivering media server functions and storage, gradually replacing hardware-based products.

- Demand for audio and camera solutions is expected to remain steady, emphasizing adopting AI-driven technologies to streamline sound management, enhance video capture automation, expand microphone channel support, and facilitate virtual and remote production.

- High-resolution video displays and high-lumens projectors are poised to set the standard for delivering immersive, impactful audience experiences. Video projection revenue is expected to achieve strong single-digit growth in the short term, driven by indoor and outdoor entertainment deployments. Similarly, video display revenue is projected to maintain comparable growth rates, sustained by robust demand throughout the forecast period.

## Residential

- Video display revenue, accounting for one-third of the sector, is expected to drive growth in the Residential market, which is projected to increase by 1% in 2025. However, macroeconomic uncertainty and the potential risk of a short-term recession in some countries weigh on the sector's performance.

- Advancements in audio technology, with smaller form factors, enable immersive audio solutions in residential settings, delivering venue-like sound experiences.

- AI-driven residential control systems, designed to manage and analyze the full array of data collected by endpoint devices in the home, are anticipated to boost demand for system updates in the later stages of the forecast, enhancing consumer experiences and home security.

## Retail

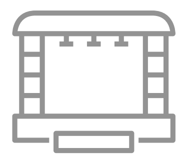
- The Retail industry is projected to grow by 3.4% in 2025, down from 4.4% in 2024, generating $22.9 billion. However, shifting consumer confidence and concerns about a possible recession could negatively influence this growth outlook in major markets such as the United States.

- Video displays, including flat panels and LED, represent about 25% of total Pro AV revenue in the sector. In the short term, display revenue will be driven by IFP/touch displays, with strong growth anticipated in China, India, Japan, and the Middle East for Digital Signage solutions.
- Investment in signage display, including out-of-home advertising, LCD walls, and self-service kiosks, is expected to increase. This will create demand for, in addition to video displays, standalone software, such as content management software, content storage, and signal switching and routing equipment, with LCDs remaining relevant for indoor use but gradually transitioning to LED technology.
- Advancements in software integrating AI-powered features, electronic shelf labeling, and data analytics will enable dynamically personalized in-store signage.
- Security and surveillance solutions will continue to drive the sector's growth through demand for capture and production equipment, standalone software, and content storage requirements.

## Transportation

- The Transportation sector is projected to reach $16.2 billion in 2025, marking a 4.5% increase compared to 2024. Despite economic pressures, budget limitations, and evolving priorities slowing the pace of Pro AV spending, the sector's revenue is expected to maintain steady progress with an average annual compound rate of 4.4%.
- Developed markets are recovering at a measured pace, while developing regions, especially in Asia-Pacific, are showing accelerated momentum driven by efforts to elevate customer experience.
- With air passenger numbers exceeding pre-pandemic levels and rising steadily, airport renovations and expansions will present consistent opportunities for the Pro AV industry, including solutions such as digital signage, video streaming, security and surveillance.
- The global transition toward transportation electrification unlocks opportunities for Pro AV companies, with increasing demand to outfit EV charging stations with e-kiosks and interactive displays.

## Venues and Events



- Venues and Events is anticipated to grow by 4.4% in 2025, down from a 7.3% expansion in 2024. The sector will be spending $42.8 billion on Pro AV solutions in 2025.
- The sector's rapid growth in the post-pandemic years is expected to soften in the coming years and stabilize at around 4.6% year-on-year as staggered replacement cycles start to kick in and new technologies replace legacy ones. By 2030, the industry will generate $53.6 billion.
- Stronger growth is anticipated from cloud-based services, driven by a gradual migration of digital content storage capacity to the cloud and standalone software, as video workflow functionality shifts to software.

- The push for enhanced audience experiences drives the adoption of advanced technologies, including AI, immersive audio, and cutting-edge video solutions. LED displays, AI-powered cameras, object-based and immersive audio systems, and AVoIP networking technology will be pivotal to meeting this demand.
- Venues and Events industry revenues in North America and Europe are expected to grow steadily over the next five years, while the Middle East, Africa, and Asia-Pacific will see stronger growth, averaging above 6% and about 5% annually respectively, driven by demand from markets like India; in contrast, Latin America is expected to lead short-term spending but will quickly fall behind other regions' expansion.

# Product Trends

**The revenue data presented in this section is raw or manufacturer-reported revenue.**

## Audio Equipment

### AUDIO CONFERENCING SYSTEMS (HARDWARE/SOFTWARE)

#### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 5,255 | 5,251 | 5,229 | 5,184 | 5,133 | 5,073 | 5,006 | 4.919 | -1.2% |
| ASP ($) | 518.0 | 507.0 | 496.6 | 486.5 | 476.4 | 466.3 | 455.9 | 446.7 | -2.1% |
| Revenue ($M) | 2,722 | 2,662 | 2,597 | 2,522 | 2,445 | 2,365 | 2,282 | 2,197 | -3.3% |

**Short-term (2025-2026)**

- As expected, demand for audioconferencing systems started to decline in 2024, with a growth rate of -2.2%. Revenue will decline further by 2.5% in 2025. This decline followed post-pandemic growth resulting from some carryover demand in 2022 and 2023. The pattern of gradual decline that was experienced pre-2020 has resumed. The audioconferencing market is projected to have a CAGR of -3.3% between 2025 and 2030, resulting in a $400 million drop in revenue in the period.
- Video-enabled collaboration solutions will continue to replace audio conferencing across multiple industries as workspaces continue upgrading and replacing equipment to accommodate hybrid working and work-from-home dynamics.

**Medium/Long-term (2027-2030)**

- Adoption of all-in-one videoconferencing and more flexible conferencing solutions incorporating video will continue to have a negative impact on audioconferencing equipment. The solution is entrenched in certain use cases, such as banks, law firms, and courthouses.
- Technology advancements in this type of solution are limited to enhancements around noise cancelation, voice isolation, voice transmission quality and room calibration, and integration with cloud-based communication and collaboration solutions.

**ASP Trends**

- As this type of solution demand decreases, is limited to specific use cases, and innovation is minor, the average selling price steadily decreases during the forecast period.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- It is expected that the Hospitality sector will be an industry in which audio-only remains relatively essential. As the industry continues to grow post-pandemic, demand for audio-only solutions will be less impacted by the transition to video-enabled communication.

### Medium/Long-term (2027-2030)

- Much of the audioconferencing solution's geographic destination is expected to continue being Asia Pacific and North America, which together will account for approximately 68% of total revenue.
- Germany, with an estimated market share of 6.3% in 2025, will see one of the sharpest drops in revenues for audioconferencing equipment in the latter half of the forecast as the transition to video-based solutions accelerates.

# HEADPHONES, HEADSETS AND EARSETS

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 47,015 | 52,608 | 63,379 | 63,733 | 69,375 | 73,383 | 78,763 | 83,859 | 5.7% |
| ASP ($) | 87.0 | 81.0 | 71.5 | 75.5 | 73.5 | 72.5 | 70.5 | 69.2 | -0.8% |
| Revenue ($M) | 4,090 | 4,261 | 4,532 | 4,812 | 5,099 | 5,320 | 5,553 | 5,803 | 5.1% |

### Short-term (2025-2026)

- This product category performed slower than expected in 2024, growing by 4.2%. The surge in demand during the previous year prevented better results, and conferencing and collaboration headsets underperformed. The market is anticipated to grow by 6.3% in 2025 as replacement cycles resume and enhanced technology creates a need for replacement.
- Demand for headsets with Active Noise Cancellation (ANC) will gradually grow to support hybrid workers
- Advanced AI algorithms that can identify and isolate unwanted sounds from audio recordings in the cloud will drive sales of headsets without ANC. These tools are used in software applications to clean up audio and video files.

### Medium/Long-term (2027-2030)

- Improved AI technology is expected to deliver enhanced solutions, such distinguishing between commands and conversations or enhanced battery and power management based on activity, generating demand for headsets.
- Despite steady growth in the second half of the forecast period, growth is expected to be about 4.5% towards the end of the forecast.

### ASP Trends

- ASPs will decrease as cheaper headsets with ANC become more readily available. Sales of high-end headphones, which command premium prices, are not high enough to offset the price decline and revenue from lower-end headphones.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Consolidation in the market is expected in the short term as profitability is increasingly tight. Some major players in this product category are currently looking for a potential buyer.
- The conference and collaboration solution is anticipated to return to stronger growth in the near future with enhanced ANC solutions.
- As live events continue to grow, demand for headsets and ear sets will continue to drive revenue, albeit at a slower pace in the short term, as demand normalizes.
- Latin America is expected to play catch up in technology, with demand accelerating in the short term.

### Medium/Long-term (2027-2030)

- The increasing importance of remote and virtual production is expected to continue growing, creating demand for products that focus on enhancing immersive experiences to cope with the nuanced soundscapes of remote and virtual environments.
- As regular product replacement cycles return to North America, the market is expected to experience a slowdown in conferencing and collaboration. Still, it is expected to pick up towards the end of the forecast period, driven by demand for innovations in headsets.

# MICROPHONES

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 9,529 | 11,101 | 12,550 | 13,543 | 14,458 | 15,409 | 16,321 | 17,305 | 6.6% |
| ASP ($) | 206.0 | 189.0 | 177.1 | 172.1 | 168.1 | 164.1 | 161.1 | 158.2 | -2.2% |
| Revenue ($M) | 1,963 | 2,098 | 2,223 | 2,331 | 2,430 | 2,529 | 2,626 | 2,738 | 4.3% |

### Short-term (2025-2026)

- This product category is returning to pre-2020 steady growth patterns. Microphone revenue grew by 6.9% in 2024, slightly lower than the 7.2% expected. Weaker demand from enterprises in the second half of the year impacted revenue for this product category.
- Revenue is projected to grow by 5.9% in 2025, reaching $2.2 billion. While signs of deceleration are beginning to emerge, the growth in Live Events and the resumption of meeting room upgrades are expected to support robust short-term growth.

### Medium/Long-term (2027-2030)

- AI-driven features will gain traction to facilitate and simplify implementation and setup, complementing technician skills.
- In the longer term, innovation is expected to focus on greater intelligence in voice pick-up management, improvements in wireless spectrum management, networked mics functionality, and greater IT integration.

### ASP Trends

- With a polarized microphone market, the overall average selling price (ASP) is showing a downward trend, as the premium segment's high prices do not offset the price pressure competition puts on mid-market and low-priced products.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The demand for microphones is primarily driven by three solutions: conference and collaboration, live events, and performance and entertainment, which account for almost 83% of the total revenue for this product category.
- As enterprises resume meeting room upgrades in 2025, demand for ceiling microphones and wireless microphones is growing.
- In solutions for live events, the number of channels is increasing, presenting challenges for management and control. AI-powered features and software are expected to address these challenges.
- Asia Pacific and Latin America are expected to outperform the market in the short term.

### Medium/Long-term (2027-2030)

- Voice lift and microphone mist technologies, although expensive to implement in the short term, will create demand for ceiling microphones in Corporate and Venues and Events verticals, possibly reducing the number of wireless microphones needed in large meeting rooms and small/mid-sized auditoriums while improving sound reach in the far corners of the rooms.
- North America accounts for almost 40% of global microphone revenue and is the largest contributing region. Meanwhile, Europe, which currently generates about one-third of global revenues, is expected to slow revenue growth further.

# SPEAKERS

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 15,172 | 17,358 | 19,186 | 20,572 | 21,950 | 23,250 | 24,766 | 26,214 | 6.4% |
| ASP ($) | 169.6 | 163.5 | 160.1 | 157.4 | 154.6 | 151.5 | 149.4 | 169.6 | -1.8% |
| Revenue ($M) | 2,704 | 2,944 | 3,137 | 3,294 | 3,455 | 3,595 | 3,752 | 3,916 | 4.5% |

### Short-term (2025-2026)

- The market started to cool down from the post-pandemic surge in 2024. Still, the speaker market grew by 8.9% in 2024, and it´s expected to reach $3.1 billion in 2025, from $2.9 billion in 2024, a 6.6% increase.
- A strong focus is being placed on upgrading audio solutions to match the industry's significant investment in video solutions over the past few years.

### Medium/Long-term (2027-2030)

- While the 2025-2030 CAGR is estimated to be 4.5%, in the mid-to-long term, the market is anticipated to grow at around 4% year over year as the market normalizes and replacement cycles start to stagger.
- Speaker technology is mature, and innovation will be incremental, with differentiation coming from value-added aspects such as form factor, connectivity, manageability, control, beam steering, and packing/transportability.

### ASP Trends

- Overall, ASP trends are expected to be downward, driven by Chinese vendors and large shipments of smaller, less feature-rich speakers. However, new features such as, Power over Ethernet (PoE) in speakers for high-end deployments will contribute to slowing down ASP.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Immersive audio for hospitality and performance venues will drive the deployment of high-end speaker solutions.
- Luxury consumer loudspeaker vendors are entering the Pro AV market, posing further competition to legacy pro audio vendors.
- Vendors are introducing versatile loudspeaker solutions that can be deployed indoors or outdoors or are suitable for different solutions such as live events or permanent installations.

### Medium/Long-term (2027-2030)

- AI-driven features are expected to dominate to assist in audio workflows and provide instant balance settings, speed up setup processes, and simplify complex systems.
- Broadcast AV is expected to accelerate revenue growth.
- Asia Pacific will remain the region with the largest growth rate for speaker revenue, with a CAGR of 5.2% vs 4.5% for the total market.

# Capture and Production Equipment

## CAMERAS (CONFERENCING/SURVEILLANCE)

### CONFERENCING

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 1,439 | 1,357 | 1,440 | 1,578 | 1,747 | 1,902 | 2,031 | 2,148 | 8.3% |
| ASP ($) | 969 | 994 | 978 | 935 | 886 | 842 | 801 | 789 | -4.2% |
| Revenue ($M) | 1,394 | 1,349 | 1,408 | 1,476 | 1,548 | 1,602 | 1,627 | 1,694 | 3.8% |

#### Explanation for 2023 revision

- Some of the most prominent vendors of peripheral videoconferencing equipment restated their 2023 results during 2024. Hence, Omdia has revised the 2023 historical data downward to reflect these changes, which have impacted revenues, units, and ASP.

#### Short-term (2025-2026)

- Conferencing camera revenue contracted by 3.2% in 2024. The market was affected by a softening of demand during the year's second quarter. Demand slightly improved in December 2024, but not enough to bring revenue to growth compared to 2023. Yet, the drop was not as deep as in 2023 (revised numbers). Revenue is expected to rise by 4.4% in 2025, to $1.4 billion, as enterprises resume postponed projects.
- In the short term, market demand will shift towards higher-specification USB cameras that allow speaker tracking, group framing, presenter tracking, and dynamic composition.
- Additionally, BYOD rooms will play a key role in driving demand for simple, plug-and-play USB cameras that support BYOD.
- Lower-end cameras for mid-sized and large rooms will decline in sales, somewhat favoring overall revenue for this product category.
- The increasing geopolitical uncertainty will create additional demand for TAA (Trade Agreement Act) compliant cameras, impacting production and pricing.

#### Medium/Long-term (2027-2030)

- In the mid-to-long term, growth will be fueled by demand for multi-camera setups for meeting equity in large and modular rooms.
- Center-of-table cameras and all-in-one soundbars are expected to increase demand for medium-sized rooms as they're easy to install and provide better user experience in this type of setting.

#### ASP Trends

- We have restated ASP for 2023 and 2024, as mentioned above.
- ASPs to go up in the short term. Over the

medium to long term, as the prices of AI technology-related products decrease, camera ASPs will also decline.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Market consolidation is likely due to numerous vendors competing for market share.
- All-in-one products will be favored over modular kits for easier deployment, management, and usability.
- The demand for BYOD rooms and compatible solutions will increase as enterprises scale video across locations.
- Sales in Latin America rise and fall based on the fortunes of a few countries, namely Brazil and Mexico. The market in Mexico experienced considerable growth in 2024; however, growth is expected to be weaker in the short term.
- North America is the most mature region, and revenue is increasing slowly; while the region has had a strong appetite for multipurpose rooms, demand for them is declining.

### Medium/Long-term (2027-2030)

- Solution management, sustainability, security, and deployment will be key differentiating factors.
- Expect solutions that enhance the experience with AR/VR to gain traction.
- EMEA is expected to perform well as more vendors focus on the region and demand for video bars continues to rise while Asia Pacific will be the worst performer towards the end of the forecast, impacted by low-priced devices.

# SECURITY/SURVEILLANCE/LIFE SAFETY

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 51,452 | 58,000 | 63,941 | 67,704 | 74,585 | 79,071 | 85,750 | 93,904 | 8.0% |
| ASP ($) | 84 | 82 | 81 | 81 | 82 | 84 | 84 | 83 | 0.5% |
| Revenue ($M) | 4,322 | 4,756 | 5,180 | 5,646 | 6,116 | 6,642 | 7,203 | 7,794 | 8.5% |

### Short-term (2025-2026)

- Overall, the development of camera technology for video surveillance can be characterized by the integration of AI and analytics, cloud connectivity, cybersecurity considerations, higher resolutions, multi-sensor capabilities, and the exploration of non-security applications.
- Direct-to-cloud cameras are gaining market acceptance. These cameras have embedded Video Management System VMS with onboard storage and are directly connected to a Video Surveillance as a Service (VSaaS) cloud management solution. This effectively removes the necessity for any on-premises bridge or appliance hardware.

- The intersection of physical security and cybersecurity remains a critical trend within the industry. Camera vendors and security software companies increasingly have to support assessments of their software/middleware code to ensure that it is secure. Likewise, the use of cloud solutions is also important in meeting cybersecurity demands in the security market, with threats to remote storage of data in the cloud balanced by higher cyber compliance in data centers.

- The video security camera market is expected to grow by 8.9% in 2025, down from a 10.1% growth in 2024, to reach $5.2 billion in revenue. Several factors are driving this growth. The shift to network video surveillance continues to replace the existing analog base. Camera prices have declined significantly over the past decade, making surveillance solutions more accessible to the SMB sector. In parallel, advancements in cloud technology and AI are accelerating replacement cycles and boosting adoption, as end users capitalize on these innovations.

### Medium/Long-term (2027-2030)

- A focus on edge AI is expected to increase as the proportion of AI cameras and recorders increases. Omdia forecasts that by 2028, 58% of all camera shipments will be AI cameras with an embedded processor capable of edge-based inference (total market including segments not applicable for Pro AV integrators). While the Pro AV market penetration is expected to be slightly lower, it will be an important market driver in the medium term.

- The Artificial Intelligence of Things (AioT) is a market shift that integrates AI capabilities into IoT devices. The endpoint-edge-core distributed architecture, which is gaining popularity in AIoT solutions, is particularly effective in mitigating the challenges traditional implementation approaches face. The shift from centralized processing to decentralized intelligence allows faster decision-making and a more proactive approach to security.

- One of AIoT's most exciting applications in the security industry is the creation of digital twins. By combining AIoT with technologies like building information modeling (BIM), Computer-Aided Design (CAD), and Geographic Information Systems (GIS), organizations can create virtual replicas of their physical assets. These digital twins can be used to simulate scenarios, predict outcomes, and optimize operations.

### ASP Trends

- The weakness in the Chinese market has resulted in network camera ASPs dropping faster than expected as higher-end AI cameras lost share in the largest country market. As a share of the market, lower-end cameras increased at the expense of deep-learning-enabled cameras.

- The average pricing of cloud (or VSaaS) cameras has increased, which should support stable pricing over the forecast period, as opposed to a more typical slow decline in ASPs. However, cloud solutions remain a small share of the overall physical market. This trend will become more relevant later in the forecast period as cloud cameras account for more market revenue.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The weakness in the Chinese market has not materially impacted the forecast. Most of the impact was contained in 2023, with market growth returning in 2024 and 2025 for the country market.
- While regional markets differ, the network camera market's fastest-growing vertical segments are in casinos and gaming, transportation, retail, and utilities. Markets well-suited to Pro AV, such as education and commercial offices, are slightly below par in terms of market growth opportunity compared to the total network camera market.

### Medium/Long-term (2027-2030)

- India, Southeast Asia, and South America are forecast to be the fastest-growing regional markets for network cameras. However, the market will also recover in Europe, East Asia and North America over the longer-term forecast.

# CAMERAS (VIDEO PRODUCTION/RECORDING)

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 1,081 | 1,121 | 1,145 | 1,187 | 1,235 | 1,298 | 1,379 | 1,482 | 5.3% |
| ASP ($) | 8,682 | 8,879 | 9,055 | 9,055 | 8,979 | 8,808 | 8,546 | 8,200 | -2.0% |
| Revenue ($M) | 9,383 | 9,949 | 10,366 | 10,744 | 11,082 | 11,430 | 11,782 | 12,151 | 3.2% |

### Short-term (2025-2026)

- In 2024, the production camera market exceeded expectations, achieving 6% growth compared to the previously estimated 5% growth from a year earlier, as Live Events continued soaring and several major economies held elections, which generally trigger camera sales.
- The rapid growth of previous years, driven by the resumption of professional content production activities and increased in-house content production for streaming by corporate and institutional organizations, has stabilized. From 2025 onward, growth is expected to align with pre-2020 rates, with a projected growth rate of 4.2% for 2025.
- AVoIP will continue its upward trend with cameras adding networking features. It is estimated that over 50% of the cameras sold will be networkable. The appeal of NDI connectivity and other video AVoIP protocols continues to gain momentum in content production, fueling demand for connectable cameras.

### Medium/Long-term (2027-2030)

- Plug-and-play camcorders. PTZ cameras, along with affordable broadcast-type models that deliver high-quality content, are set to democratize content creation, further reducing the average selling price (ASP).

- Demand surges with world sports events and other cyclical institutional events, such as national elections. Large events of this type are generally scheduled for the latter part of the forecast.
- AI-powered features beyond tracking speakers and auto zooming functionality will trigger replacement cycle demand to update equipment.
- Video workflows will start adopting 8K resolution, with detailed editing process requirements driving the adoption of 8K solutions.

### ASP Trends

- Average pricing is expected to increase in the short term as features such as 8K and AVoIP capability are added to them. Prices will stabilize and start to come down after 2026, as competition from lower-priced cameras puts pressure on the market.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The production camera market is poised for consolidation in the short term, with many vendors in the mid-range market offering little differentiation.
- The Media and Entertainment sector, where PTZ cameras are becoming a dominant presence either as main or complementary capture devices, is expected to grow by 4.3% in 2025, as lower-priced cameras are weighing down total revenues.
- The Corporate sector is expected to be a strong driver for production cameras as in-house studios and live events continue to grow.
- Broadcast AV is now stabilizing after a period of rapid growth. However, performance in this category could be impacted by budgetary constraints in Education and global uncertainty in the Government and Military sector.

### Medium/Long-term (2027-2030)

- Most solutions will resume pre-2020 run rates in the mid-term, with around 3% growth year-on-year.
- In Education, content production cameras have been widely adopted for in-house studios supporting hybrid and remote learning, as well as university sports. Regular but extended replacement cycles are expected to resume later in the forecast period, contingent on the resolution of budgetary constraints.
- Asia Pacific, which contributes over 41% of global revenue, is projected to increase its share market slightly, driven by regional growth rates expected to surpass overall market performance.

# VIDEO CONFERENCING SYSTEMS (HARDWARE/SOFTWARE)

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 1,061 | 1,219 | 1,352 | 1,444 | 1,561 | 1,628 | 1,690 | 1,683 | 4.5% |
| ASP ($) | 1,968 | 1,916 | 1,868 | 1,840 | 1,779 | 1,732 | 1,683 | 1,669 | -2.2% |
| Revenue ($M) | 2,088 | 2,335 | 2,525 | 2,656 | 2,776 | 2,818 | 2,844 | 2,807 | 2.15% |

### Explanation for 2023 revision

- Some of the largest vendors of peripheral videoconferencing systems restated their 2023 results during 2024. Hence, we have revised the 2023 historical data downward to reflect these changes, which have impacted revenues, units, and ASP.

### Short-term (2025-2026)

- In 2024, revenues from video conferencing systems grew by 11.9%, down from the anticipated 16.5% forecast, to reach $2.5 billion. Like other hardware and software solutions primarily focused on Conferencing and Collaboration, the unexpected slowdown in the corporate vertical during the second half of 2024 impacted the revenue.

- The market will grow by 8.1% to reach $2.7 billion as enterprises and office buildings resume postponed projects from the previous year.

- Microsoft certification of Cisco endpoints is expected to create demand for Cisco endpoints in the short term.

- As more vendors bring Microsoft Device Ecosystem Platform (MDEP) -powered solutions to the market, the short-term will see MDEP gain traction.

- Demand will shift from Windows-based deployment to Android solutions, while Windows-based solutions will primarily go into larger spaces.

### Medium/Long-term (2027-2030)

- The market is expected to stabilize in the latter years of the forecast, with low single-digit growth rates, as video enablement reaches maturity and approaches saturation.

- MDEP will become a de facto standard for Android-based VC solutions in meeting rooms

- In the longer term, some traction is expected for solutions that facilitate 3D video calls.

- Demand will shift from Windows-based deployment to Android solutions.

- Windows-based solutions will primarily be deployed in larger spaces.

### ASP Trends

- ASPs will continue to decrease as sales increase, enabling vendors to achieve economies of scale.

- ASP for solutions that offer meeting equity and multi-camera capabilities are also expected to decrease.

### KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

#### Short-term (2025-2026)

- Microsoft will dictate a lot of requirements and standards in the market, given that there are more than 1 million MTR meeting rooms.
- Microsoft currently supports BYOD (Bring Your Own Device) rooms, but its goal is to upgrade these rooms to full Teams Rooms eventually. Their strategies will primarily focus on the BYOD spaces, as they represent the addressable market where advanced video capabilities are currently lacking.

#### Medium/Long-term (2027-2030)

- Copilot for meeting rooms will drive revenue and new technologies in meeting rooms.
- Demand for sensors, network gear and workplace management technologies will grow significantly.
- North America, the second largest market accruing for one-third of total revenues, and EMEA, the third largest market, will lead growth in the mid-to-long term, while Asia Pacific will lag.

# Content Management Hardware

## AV SERVERS

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 2,709 | 2,867 | 2,998 | 3,149 | 3,281 | 3,400 | 3,518 | 3,650 | 4.0% |
| ASP ($) | 1,523 | 1,507 | 1,507 | 1,503 | 1,501 | 1,500 | 1,498 | 1,495 | -0.2% |
| Revenue ($M) | 4,124 | 4,321 | 4,518 | 4,731 | 4,925 | 5,098 | 5,270 | 5,458 | 3.8% |

#### Short-term (2025-2026)

- The AV server market is anticipated to reach $4.3 billion in 2025, up from $4.1 billion a year earlier, an increase of 4.8%. Strong demand for servers from Live Events, Performance and Entertainment, and Digital Signage solutions will offset weaker demand from Conferencing and Collaboration and Learning.
- In the short term, revenue growth is expected to stabilize, though at a much slower pace than in previous years. With most of the upgrades already completed, growth will be driven by emerging technologies such as projection mapping and immersive experiences, as well as replacements required to support 4K resolution and new codecs.

### Medium/Long-term (2027-2030)

- In the mid-to-long term, the AV server market is expected to stabilize, with an estimated CAGR of 3.8% between 2025 and 2030, as Media and Entertainment and Venues and Events stabilize growth.
- As edge technology expands and latency decreases, some AV server functionality will move to the cloud in industries and solutions where low latency is not a requirement. However, AV servers are expected to remain indispensable for applications requiring ultra-low latency.
- Towards the end of the forecast period, advancements in imaging and the adoption of 8K resolution are expected to trigger a replacement cycle for AV servers to take advantage of enhanced panning, zooming and framing capabilities offered by 8K.

### ASP Trends

- After the surge in prices in 2023 and the subsequent adjustment, ASP is expected to remain stable during the forecast period, with a slight downward trend.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Media and Entertainment and Venues and Events, which represent almost half of global AV server revenues, are projected to drive this product category's growth with expected revenue increases of 6% and 6.8%, respectively, in 2025. Live Events is also anticipated to outperform the market in 2026, driven by the adoption of immersive experiences, projection mapping and high-resolution video displays.
- Asia Pacific accounts for almost 35% of the global market. China, which accounts for approximately 50% of total regional revenues, is expected to perform better in 2025 compared to 2024, as the domestic economy is anticipated to show improvement. The region is projected to be the best-performing region during the forecast period, exceeding the total market CAGR for 2025-2030.

### Medium/Long-term (2027-2030)

- As Live Events generally require ultra-low latency, a functionality cloud-based services may not be able to deliver consistently, the share of total revenue attributed to this solution is anticipated to increase during the forecast period.
- Security/Surveillance/Life Safety is expected to sustain higher growth rates during the forecast period, as certain industries, such as Government and Military or Utilities, are less likely to rely on cloud solutions for security applications.
- By the end of the forecast period, media server revenue in Latin America, Europe, and North America is expected to stabilize at approximately 1.8% annually. In contrast, Asia Pacific, particularly China and India, are expected to maintain a steady growth rate of above 5%, fueled by demand from Live Events and Media and Entertainment.

# MEDIA SERVERS

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 56,635 | 61,741 | 65,904 | 69,442 | 72,426 | 75,450 | 78,308 | 80,819 | 4.2% |
| ASP ($) | 663.4 | 647.1 | 618.4 | 598.9 | 584.6 | 572.4 | 561.9 | 554.9 | -2.1% |
| Revenue ($M) | 37,571 | 39,955 | 40,755 | 41,586 | 42,339 | 43,186 | 44,002 | 44,844 | 1.9% |

### Short-term (2025-2026)

- Media server revenue grew by 6.3% in 2024, surpassing expectations due to stronger-than-anticipated growth in Surveillance/Security/Life Safety. The market performance of media servers used in other solutions was also slightly better than anticipated.
- Following rapid post-pandemic growth, driven by Pro AV video digitalization and streaming solutions, the market is now returning to pre-2020 growth. Revenue is forecasted to reach $40.8 billion in 2025, representing a 2% increase from 2024.
- Surveillance/Security/Life Safety will drive much of the growth, especially in Asia Pacific, along with rising content file sizes and live video streaming.
- Advanced co-processors and multi-tenancy servers are expected to drive demand for media servers, maintaining revenue growth within the low-single-digit range.

### Medium/Long-term (2027-2030)

- Global growth rates are expected to decline over the forecast period, with a compound average annual growth rate of 1.9% projected between 2025 and 2030. Media servers for Surveillance/Security/Life Safety are likely to perform relatively well, though at much lower rates than in previous years. Lower prices for these types of servers are insufficient to offset the declining incremental growth seen in other Pro AV solutions.
- Migration to cloud-based server functionality, already underway, is expected to gain momentum in the later part of the forecast period, supported by advancements in low-latency edge networks within content delivery networks and standalone 5G networks.
- Upgrades to 10G networks will likely be more frequent, sustained by lower prices and growing capacity demand.

### ASP Trends

- The downward trend in the media server's ASP during the forecast period is expected to be steeper than initially projected in 2024, driven by variations in product mix and the weighting of each product in the overall ASP calculation. Media servers used in surveillance, security, and life safety, which are lower-priced, are anticipated to carry more weight than previously expected, thereby reducing the overall ASP.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Broadcast AV, Digital Signage and Security/Surveillance/Life Safety solutions will account for 55% of media server revenue in 2025. From the industry's perspective, nearly 65% of revenue is expected to come from the Corporate, Media and Entertainment, and Venues and Events verticals.
- The Education sector is expected to experience a slowdown in demand for media servers, as its budgets are restricted in the short term.
- Asia Pacific, the Middle East and Africa will outperform the global market in the short term. Both Security solutions and media and entertainment are strong drivers for growth in the region.

### Medium/Long-term (2027-2030)

- The growing adoption of VSaaS (Video Surveillance as a Service) and hosted video solutions is likely to shrink the addressable market for traditional recorders and video software used in Surveillance/Security/Life Safety applications.
- Enhanced and widely available edge content delivery services are expected to efficiently provide low-latency solutions, such as mixed reality media and cloud gaming, which currently rely on localized servers. This migration is likely to impact the hardware-based server market in the Media and Entertainment sector.
- North America and Latin America account for about 38% of the global media server market, with revenue expected to grow from $15.4 billion in 2025 to $ 16.7 billion in 2030. Similarly, Asia Pacific revenue is projected to increase from $14.5 billion in 2025 to $16.2 billion in 2030.
- Both Europe and North America are expected to underperform the global market, as investment in servers was strong in previous years and, in the longer term, the transition to cloud-based server functionality is expected to be quicker in these regions.

# MEDIA PLAYERS

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 2,467 | 2,432 | 2,382 | 2,234 | 2,107 | 2,005 | 1,864 | 1,748 | -6.0% |
| ASP ($) | 641.8 | 645.3 | 644.4 | 633.2 | 626.7 | 624.1 | 622.8 | 617.4 | -0.9% |
| Revenue ($M) | 1,584 | 1,569 | 1,535 | 1,415 | 1,321 | 1,252 | 1,161 | 1,080 | -6.8% |

### Short-term (2025-2026)

- The media players market is projected to decline by 2.2% to reach $1.54 billion by 2025. This trend underscores a pivotal market shift: Integrated system-on-chip (SoC) displays, and increasingly capable cloud-based playback solutions are actively eroding the market share of traditional standalone players, particularly in mainstream applications favoring simplicity and lower cost. Consequently, the standalone player market is increasingly consolidating around higher-end, performance-critical use cases.

- Artificial intelligence is maturing beyond basic automation, becoming integral to delivering highly personalized and context-aware content. Advanced players are increasingly leveraging AI not just for optimized scheduling but also for real-time audience analysis – identifying demographics or even repeat visitors – to dynamically tailor messaging for maximum impact. This capability directly addresses the growing demand for more relevant and engaging viewer experiences.

- Technological advancements further define this high-end niche. The demand for complex interactivity (including AR/VR and touchless interfaces), and flawless ultra-high-definition playback (4K baseline, with growing 8K/HDR requirements) necessitates processing power and specialized capabilities often exceeding those of current SoC or basic cloud solutions. These demanding applications—requiring real-time analytics, intricate rendering, multi-display synchronization, or integration with specific enterprise systems—constitute the primary remaining stronghold for dedicated hardware.

- While SoC solutions address volume segments, dedicated players retain differentiation through superior processing, guaranteed 24/7 reliability under load, specific software compatibility, and multi-output flexibility – characteristics crucial for complex deployments where performance outweighs cost sensitivity. Even within this high-end segment, operational factors remain vital; energy efficiency (driven by TCO and sustainability) influences hardware design (ARM adoption, fan-less cooling), and robust cloud-based management platforms are essential infrastructure for deploying and maintaining these sophisticated signage networks effectively.

### Medium/Long-term (2027-2030)

- The standalone media player hardware market is being reshaped by displacement from below by SoC and cloud alternatives. Its viability now hinges on serving specialized, high-performance applications where advanced features like AI-driven personalization, complex interactivity, and cutting-edge visual fidelity justify the investment in dedicated hardware.
- Vendor success depends on innovating within this demanding niche while addressing essential operational needs like efficiency and remote manageability.

### ASP Trends

- The standalone digital signage media player market in early 2025 displays a wide pricing range, from sub-$100 consumer-adapted devices to specialized units exceeding $1,500-$2,000. This variance directly mirrors the deep segmentation of the market, catering to vastly different application requirements, from basic content loops to complex, data-integrated interactive experiences.
- Significant downward price pressure impacts the entry and mid-level segments. Key drivers include the integration of System-on-Chip (SoC) technology in displays, which suffices for simple signage tasks, and the availability of inexpensive consumer streaming hardware or mini-PCs repurposed for basic digital signage, challenging dedicated players purely on cost.
- Despite the pressure, premium pricing holds firm in the high-end niche due to distinct value justifications. These include superior processing power required for AI analytics, 8K/HDR content, and complex interactivity; enhanced 24/7 reliability derived from industrial components and robust thermal management; specialized features such as multi-output sync or industry certifications; and essential commercial-grade warranties and support.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- In the short term, demand for standalone players in the Retail, Quick Service Restaurant (QSR), Hospitality and Venues sectors is mixed, driven by specific application needs. While basic displays increasingly use SoC/entry-level options, complex interactive kiosks, large video walls, and analytics-driven experiences still require dedicated hardware.
- Due to paramount needs for reliability (24/7), security, and complex real-time data integration, Critical Operations (Transportation, Healthcare) verticals will continue to rely heavily on robust, dedicated standalone players in both the short and long term. While SoC might serve non-critical functions, core information systems demanding high stability and specific compliance will ensure persistent demand for proven standalone hardware.
- Driven by cost-effectiveness and simplified management, Organizational Settings (Education, Corporate Communications) sectors will increasingly adopt SoC and entry-level players for standard communications in the short term. This trend

is projected to continue long term (2027+), significantly reducing the market share for standalone players and relegating them to highly specialized, performance-intensive applications.

### Medium/Long-term (2027-2030)

- Standalone media players in the Retail, QSR, Hospitality and Venues sectors are expected to become highly specialized, serving only advanced niches demanding sophisticated AI, high-impact interactivity, or complex multi-screen visuals far exceeding standard integrated solutions.

## MEDIA STORAGE

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 48,893 | 51,750 | 53,315 | 54,896 | 56,966 | 58,743 | 61,387 | 64,005 | 3.72% |
| ASP ($) | 458.4 | 463.9 | 463.9 | 463.9 | 459.3 | 454.7 | 445.6 | 436.7 | -1.2% |
| Revenue ($M) | 22,393 | 24,012 | 24,738 | 25,472 | 26,147 | 26,728 | 27,379 | 27,970 | 2.49% |

### Short-term (2025-2026)

- The media storage market's growth is projected to decelerate from 7.2% in 2024 to 3% in 2025, influenced by market saturation, increasing competition, and migration to more scalable and cost-effective cloud storage, even as factors like high-resolution video(4K/8K) adoption, increased content creation, and technological advancements continue to drive expansion. Investments in media storage hardware were very aggressive in past years. We have reviewed the growth based on over investment, a slowdown of the market as it normalizes, better use of compression technologies, and migration to the cloud, which is cheaper and more flexible.
- Despite high storage costs posing a challenge, opportunities for growth in the media storage market exist through the increasing demand for higher image resolution, and the rising popularity of VR.

### Medium/Long-term (2027-2030)

- The global media storage market will continue to see demand for digital advertising, video content creation, and workflow improvements.
- More complex and data-demanding content will result from the rise of immersive experiences and the use of mixed reality (MR).
- However, growth is projected to slow from 2.7% in 2027 to 2.2% in 2030 due to improved storage efficiency. High costs of advanced technologies could limit adoption in price-sensitive areas.

### ASP Trends

- The ASP shows a slight increase initially, peaks around the middle of the period, and then gradually decreases and stabilizes towards the end of the period.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Broadcast AV, with 24.4% of total media storage revenue, leads the market in 2025, followed by Digital Signage, with 15.2%, and Security/Surveillance/Life Safety, with 14.9%, emphasizing digital media, advertising, and security.
- Live Events and Performance/Entertainment thrive with immersive experiences, while education drives growth through hybrid learning, increasing content creation for remote teaching and sports, and a need for secure data storage.
- Security/Surveillance/Life Safety is anticipated to grow by 9.1% in 2025, with deployments in China and the Middle East driving this growth.

### Medium/Long-term (2027-2030)

- Driven by digital transformation trends, Security/Surveillance/Life Safety solutions are shifting from siloed systems to enterprise-grade platforms, offering scalability, third-party integration, and IT compliance. Video is also being utilized for operational efficiency and ROI, with potential applications extending to Pro AV projects.
- APAC and North America are anticipated to show strong demand for media storage solutions due to their robust digital infrastructure and evolving needs in education and security. In contrast, the Middle East and Africa and Latin America are experiencing a sustained downward trend, albeit the Middle East is expected to have the highest regional growth throughout the forecast period.
- The Healthcare sector is growing, while the Venues and Events sector is expected to have stable growth with some fluctuations.

# Control and Collaboration

## COLLABORATION SYSTEMS (HARDWARE/ SOFTWARE)

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 1,619 | 1,665 | 1,763 | 1,866 | 1,955 | 2,036 | 2,112 | 2,196 | 4.5% |
| ASP ($) | 1,697 | 1,712 | 1,687 | 1,656 | 1,636 | 1,613 | 1,585 | 1,548 | -1.7% |
| Revenue ($M) | 2,748 | 2,849 | 2,973 | 3,091 | 3,200 | 3,283 | 3,347 | 3,398 | 2.7% |

#### Short-term (2025-2026)

- The collaboration systems market has been revised downward. A year ago, the market was anticipated to grow 5.6% in 2024, versus the actual 3.7%, and 7.8% in 2025, vs the now projected 4.4%. Despite the adoption of hybrid working models, demand in 2024 was weaker than anticipated. In 2025, investments in flexible spaces and AV equipment are expected to drive demand. There are a couple of reasons for slower projected growth. While the overall enterprise collaboration market is still growing, there has been a deceleration in the growth rate of collaboration software in 2024, with this trend continuing in the near term. The wireless presentation market, specifically, might be in a transition phase with increased competition and fragmentation. This means that while demand is there, the explosive growth seen during the pandemic might be normalizing, leading to more intense competition and potential pressure on prices.
- The collaboration systems market offering is expanding through patent licensing and newly developed products, increasing competition in this space.
- The focus is on wireless presentation systems and tools that enable seamless synchronization with personal devices, supporting both bring-your-own-device (BYOD) and bring-your-own-meeting (BYOM) practices. These systems are increasingly adopting wider aspect ratios, such as the 21:9 format embraced by Microsoft Meeting Team Rooms, to deliver more immersive experiences.
- Advancements in AI are enhancing the functionality of hybrid meetings through features like automated camera and audio management, support for multi-touch screens, and streamlined firmware updates.

#### Medium/Long-term (2027-2030)

- From 2027 onward, the market for collaboration systems is anticipated to grow at low single-digit rates, as demand for this type of solution will have reached some level of market saturation and growth will be more impacted by replacement cycles than new deployments.

- Some Pro AV companies are prioritizing complete, easy-to-use systems with better control and customer experience. Market saturation and economic factors may reduce the need for entirely new meeting systems as hybrid work stabilizes.
- As consolidation in the cloud-based collaboration solutions markets occurs, collaboration systems will offer universal compatibility, functioning seamlessly across different platforms, simplifying and enhancing the end-user experience.

### ASP Trends

- Higher ASPs initially were due to early system investments. From 2025, the decline was driven by demand for cheaper solutions, stabilized hybrid work and vendors focusing on streamlined offerings.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The market is expected to strongly favor BYOM solutions for huddle rooms and smaller spaces. Video solutions in open areas are also promising if vendors offer compelling, tailored options, given the existing suitability of collaboration boards.
- To support flexible work, enterprises are increasingly outfitting huddle rooms with cost-efficient, user-friendly solutions often enhanced by features like automated meeting scheduling.
- Asia Pacific and North America are projected to account for 71% of global revenue, with both regions showing comparable growth rates. In the short term, the Government and Military sector will lead in Asia Pacific, while the Transport sector will dominate growth in North America.

### Long-term (2027-2030)

- Collaboration systems are expected to support a broad spectrum of modalities and use cases. These solutions and tools will need to support increasingly more complex fields by seamlessly integrating across various work environments.
- Education, Healthcare, and Energy and Utility show the highest compound average annual growth between 2025 and 2030. Most sectors decelerate towards 1.5% growth by 2030, with mid-decade fluctuations in Education, Government and Military, Healthcare, and Transportation as replacement cycles hit. This is also due to a segment of the presentation and collaboration products shifting from a primary focus on hardware to more software-driven and cloud-enabled solutions. This change is likely to increase pressure on revenue from traditional hardware products if those functionalities can be delivered more cost-effectively through software or integrated platform solutions.
- North America shows stable and comparatively strong growth, and Asia Pacific experienced high initial growth but then a significant slowdown.

# CONTROL SYSTEMS

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 38,206 | 39,217 | 40,819 | 42,962 | 45,492 | 48,330 | 51,343 | 54,105 | 5.8% |
| ASP ($) | 291.0 | 291.6 | 290.8 | 289.3 | 287.0 | 283.9 | 280.4 | 279.0 | -0.8% |
| Revenue ($M) | 11,118 | 11,436 | 11,870 | 12,429 | 13,056 | 13,721 | 14,396 | 15,095 | 4.9% |

### Explanation for units' revision

- In 2024, we omitted to add all control systems units, only providing units destined for Security/Surveillance/Life Storage solutions. We have rectified this error and added the units missing from 2023 onward.

### Short-term (2025-2026)

- The control systems market was revised downward in 2025, as both the Corporate sector and Surveillance/Security/Life Safety solutions underperformed in 2024. The growth rate is now predicted to reach 3.8% in 2025, up from 2.9% in the previous year. The control systems market's expansion is driven by the adoption of IoT and AI for real-time monitoring and efficiency gains.
- Security/Surveillance/Life Safety and lighting control systems represent over 70% of total revenues for this product category.
- Although this product category remains predominantly hardware-based, functionality and features are steadily migrating to software and cloud platforms, enhancing scalability and flexibility while anchoring software solutions to the hardware provided.
- While simplifying AV operations, centralized control systems often demand specialized knowledge and training investments.
- Combining control of lighting, HVAC, and security in building management systems enhances resource efficiency and overall performance.
- Solutions continue to migrate to IP, despite the evolution of building technologies being slower than that of other technologies. The video surveillance market is gaining confidence in IP-based solutions and transitioning towards them.

### Medium/Long-term (2027-2030)

- Innovation will be driven by sustainability, reduced energy consumption, and lower carbon emissions, alongside a growing emphasis on employee comfort to enhance well-being, productivity, and retention.
- Digital transformation and Industry 4.0 are pushing companies to adopt control systems for real-time monitoring, optimized workflows, and predictive maintenance.
- Emerging markets are modernizing production facilities, driven by advancements in edge computing, 5G, digital twin technology, and cybersecurity.

### ASP Trends

- The high representation of Control Systems for Security/Surveillance/Life Safety, which has a relatively lower average selling price (ASP), brings down the ASP for this product category.

### KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

#### Short-term (2025-2026)

- Touch panels and remote controls are evolving toward greater intuitiveness and user-centric design, which will gain them a prominent position in both commercial and residential use.
- Edge-based and IP-enabled controllers will be increasingly adopted for real-time data processing and improved system responsiveness.
- The integration of control systems into unified platforms is rapidly advancing, paving the way for seamless operation and an elevated user experience across future commercial and residential spaces.
- Incentives from programs like "Make in India" and Europe's "Green Deal" are boosting the adoption of advanced control systems.
- In the short term, growth will be driven by control systems across Media and Entertainment, Venues and Events, and Government and Military sectors, particularly Security/Surveillance/Life Safety solutions.

#### Medium/Long-term (2027-2030)

- Energy efficiency, system convergence, and smart buildings, with sensor fusion and integration creating new solutions, will fuel demand for new technologies in the mid-to-long term.
- Latin America and the Middle East and Africa show strong and sustained growth, with the Middle East and Africa tapering slightly in later years but still impressive. Whereas North America exhibits declining growth.
- Even with strong growth, the Government and Military sector is declining. Similarly, Corporate and Venues and Events are also experiencing a downturn, as more software-based solutions are adopted decoupled from dedicated hardware indicating a wider trend.

# Environmental

## LIGHTING FIXTURES

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Revenue ($M) | 7,199 | 7,676 | 8,167 | 8,675 | 9,196 | 9,710 | 10,227 | 10,743 | 5.6% |

#### Short-term (2025-2026)

- Lighting fixtures revenue is anticipated to reach $8.2 billion in 2025, reflecting a 6.4% increase from $7.7 billion in 2024. The market is projected to grow at mid-single-digit rates, year-on-year growth, but at gradually declining growth rates.
- Ongoing investment in infrastructure to retrofit existing spaces with energy-efficient lighting solutions and improve aesthetics

and functional aspects in the Corporate and Venues and Event sectors are behind the expected growth:

- Immersive experiences in live events and the entertainment industry will also contribute to market growth.

**Medium/Long-term (2027-2030)**

- Smart programmable LED stage lighting solutions, initially deployed in live events and entertainment, are set to expand into office spaces and educational institutions.
- Smart lighting solutions will serve purposes beyond illumination, leveraging system-generated data to deliver actionable insights.

### KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

**Short-term (2025-2026)**

- Performance and Entertainment accounts for almost 72% of revenue in the short term, a market share that will decrease slightly over the forecast period. Growth in this space is anticipated to be stable, with demand fueled by immersive experiences and environmental and energy efficiency.
- AI algorithms are increasingly employed to optimize lighting levels, colors, and parameters in real time, creating dynamic, responsive lighting that elevates the experience.
- North America contributes over 40% of global lighting fixture revenues.

**Medium/Long-term (2027-2030)**

- AI-powered lighting systems enable high-quality customization and are expected to expand into high-end Hospitality and Retail spaces, mirroring the immersive experiences already prevalent in Venues and Events.
- The Education sector is likely to adopt smart, AI-powered lighting solutions, driven by the need for energy efficiency and sustainability amid shrinking budgets.
- Asia Pacific is projected to outperform other regions towards the end of the forecast period, fueled by robust demand in China and India.

# Infrastructure

## MOUNTS, STANDS AND LIFTS

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 18,349 | 19,308 | 20,336 | 21,333 | 22,130 | 22,824 | 23,405 | 23,546 | 3.0% |
| ASP ($) | 146 | 146 | 145 | 145 | 146 | 147 | 148 | 151 | 0.8% |
| Revenue ($M) | 2,679 | 2,819 | 2,949 | 3,093 | 3,231 | 3,355 | 3,464 | 3,555 | 3.8% |

### Short-term (2025-2026)

- Mounts, Stands and Lifts grew by 4.6% to reach $2.9 billion by 2025. The market is expected to continue its growth phase throughout the forecast period, increasing by 3.8% to reach $3.6 billion by 2030, indicating steady demand for supporting equipment in the AV industry.
- The industry is moving towards standardizing designs for LED mounts, stands and lifts by using brand-agnostic designs that suit all companies.
- Mounting solutions have evolved more into multifunctional systems integrating storage and cable management for cost-saving and optimizing space.
- The industry is shifting towards compact, efficient equipment designs that support improved thermal performance, airflow, and cable management—reducing the need for dedicated AV rooms and aligning with remote management trends.
- There is an increased demand for sophisticated, automated mounting solutions, including lifts, articulated arms, and specialized stands, that feature seamless integration with professional control systems. These solutions enable effortless, preset-driven adjustments for optimal viewing, support flexible hybrid collaboration environments, and allow for aesthetic display concealment.

### Medium/Long-term (2027-2030)

- The increasing demand for all-in-one (AIO) displays presents challenges for the traditional mounts market. However, it also creates opportunities for specialized mounting solutions. These solutions are designed to improve the functionality and flexibility of AIO systems, highlighting potential areas for growth within the mounts market.
- The rise of Direct View LED (DVLED) displays in various applications is expected to drive demand in the long term for advanced mounting solutions.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Digital signage continues to drive Pro AV demand, especially in the retail sector, as businesses focus on attracting customers, addressing labor challenges, and enhancing the in-store experience.
- The demand for smart, automated mounting solutions that can be controlled through apps or voice commands is increasing. This trend aligns with the broader movement toward smart home integration and the growing use of devices like voice assistants. In corporate, public spaces, and retail sectors, the demand for these solutions is rising as more interactive displays and signage are deployed. This trend is driven by the need for flexible, durable mounting solutions that can withstand frequent adjustments.
- North America and Europe currently lead the market, supported by advanced infrastructure. However, the Asia-Pacific region is also expected to experience significant growth due to rapid urbanization, rising disposable incomes, and the increasing adoption of advanced technology in countries such as China, Japan, and India.

**Medium/Long-term (2027-2030)**

- The replacement cycle for mounts may slow as modern displays offer longer lifespans and improved Video Electronics Standards Association (VESA) compatibility, reducing the need for frequent upgrades.
- The growing adoption of interactive flat panel displays in classrooms, along with the emergence of AR/VR technologies, is creating opportunities for specialized and adaptive mounting solutions in the education sector.
- Demand for racks and accessories remains strong in conferencing, collaboration, and learning environments. However, hybrid work trends and increased remote learning are expected to spur moderate growth from performance and entertainment applications.

## SIGNAL ROUTING AND SWITCHING (HARDWARE/SOFTWARE)

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 6,913 | 6,840 | 6,921 | 7,065 | 7,257 | 7,471 | 7,673 | 7,874 | 2.6% |
| ASP ($) | 826 | 861 | 872 | 873 | 869 | 865 | 861 | 857 | -0.3% |
| Revenue ($M) | 5,710 | 5,887 | 6,037 | 6,171 | 6,307 | 6,465 | 6,606 | 6,745 | 2.2% |

**Short-term (2025-2026)**

- The global Pro AV switching and routing market is expected to reach $6.0 billion in 2025, up 2.5% from a year before, driven by Digital Signage, Live Events, and Performance and Entertainment. The market has entered in more stable and steady growth and will remain during the forecast period.
- The main growth factor for this product category is the uptake of AVoJP, which is fast replacing traditional AV switching products. Hardware requirements are less with IP-based signaling and routing but generally command higher prices.
- Standards alignment remains uncertain, with no new protocol offering interoperability introduced on the market in the last year. To address protocol interoperability challenges, gateways facilitating bridges between AVoIP protocols are emerging.
- NDI and Dante AV are increasingly gaining market share in the AVoIP protocol video scene, a trend that's expected to continue. Likewise, SDVoE- and -IPMX-supporting hardware are increasing in numbers.
- HDBAseT is still very much present for fully uncompressed 4K@60Hz 4:4:4 content. The latest version can deliver point-to-point content to up to 100 meters and support 32 audio channels.

### Medium/Long-term (2027-2030)

- By 2027, Omdia expects between 65% and 70% of all Pro AV switching and routing equipment will be IP-capable.
- Analog equipment revenue will rapidly decrease towards the end of the forecast period. However, they will still be relevant in small single AV installations, within short distances and single rooms, and installations requiring 4 or fewer ports.
- It is not expected to have a noticeable impact as this equipment will command relatively lower prices.

### ASP Trends

- As AVoIP equipment commands a higher price, ASP will have an upward curve in the short term as IP-enabled hardware is deployed. ASP will start to come down in the mid-term.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

- **Short-term (2025-2026)**
- Dedicated AV switches with various endpoints' pre-set profiles from different vendors are becoming common in the industry, as well as gateways to bridge AVoIP protocols.
- Live Events, Command and Control, and Conferencing and Collaboration are the largest contributors to AV switching and routing revenue, with over 54% of the market, as these solutions usually need routing of a high number of endpoints across large networks.
- From the revenue growth point of view, Digital Signage and Live Events are expected to grow at a higher pace than the overall switching market, fueled by demand in Asia Pacific and Middle East and Africa.
- Latin America, the smallest revenue contributor in this category, is set to lead regional growth, fueled by remnants of the post-pandemic surge of upgrades in Live Events and Performance and Entertainment solutions.

### Medium/Long-term (2027-2030)

- By the forecast's end, 4K/60 4:2:0 and 4:4:4 video distribution is expected to dominate, driving seamless switching, advanced rescaling, 4K resolution, and IP-based scalers.
- Greater clarity and improved interoperability across protocols will boost AVoIP demand, surpassing point-to-point networking.
- Asia Pacific will remain the fastest-growing market with steady growth rates year-on-year, with China and India leading the growth.
- North America, where a quicker transition to AVoIP, especially in Conferencing and Collaboration, is expected to have a quicker decline in revenue than other regions. North America adoption of AVoIP is higher than in other regions.

# Standalone Software

## STANDALONE SOFTWARE

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Revenue ($M) | 4,699 | 5,143 | 5,562 | 6,038 | 6,512 | 7,053 | 7,602 | 8,174 | 8.0% |

#### Short-term (2025-2026)

- The standalone software market is projected to grow by 7.6% in 2025, reaching $5.6 billion. This product category continues to outperform the average growth rate for the professional AV industry, and it's expected to maintain this trend during the forecast period.
- Content management software remains a key growth drive, fueled by expanding use cases for Digital Signage solutions. Furthermore, the transition to software-based audio/video management, video workflows, and endpoint management software is contributing significantly to market expansion.
- Hybrid work environments are fueling demand for desk and room scheduling software.
- Pro AV, traditionally hardware-based, faces short-term resistance to fully adopting software functionality due to the resulting shifts in revenue structures.

#### Medium/Long-term (2027-2030)

- Over the mid-to-long term, standalone software is expected to maintain its outperformance in total Pro AV market growth, though at significantly reduced rates compared to previous years. The estimated average annual growth rate for the period from 2025 to 2030 is 8%.
- Advanced machine learning and AI-powered features are poised to become key market drivers in video management software, as well as in a variety of other solutions.
- Advancements in chip computational power are expected to drive SoC-based solutions, accelerating the transition to software in applications such as digital signage and IP-based Pro AV systems.

#### ASP Trends

- The ASP for software licenses is expected to decline. However, the diverse software mix within this category and the wide price range of licenses mean that actual ASP trends will vary based on the functionality offered and the intensity of competition within each product segment.

### KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

#### Short-term (2025-2026)

- Digital Signage, Conferencing and Collaboration, and Security/Surveillance/ Life Safety are the three largest solutions contributing to standalone software with 60% of global revenues.

- Demand for content management software and applications software to deliver personalized experiences in Digital Signage is anticipated to grow by 7.1% in 2025, slightly improving the following year as demand from Asia Pacific, particularly India, and the Middle East will continue an upward trend.
- The growing integration of AI-powered analytics in Security, Surveillance, and Life Safety solutions is set to fuel demand for standalone software, delivering features such as facial recognition, object detection, and behavior analysis, meeting demands for security and operational efficiency.

### Medium/Long-term (2027-2030)

- The rise of cloud solutions in Security, Surveillance, and Life Safety applications highlights their growing appeal due to flexibility, scalability, and cost efficiency. While cloud-based security solutions are expected to gain traction, they may temper the demand for localized software in security solutions. Nevertheless, the solution is projected to expand its share of standalone software revenue.
- Retail remains the leading contributor to standalone software revenue, driven by its substantial consumption of Digital Sign solutions and content management software. Additional demand is expected for software enabling in-store personalization and analytics applications in digital signage. The industry is forecasted to grow by 7.4% in 2025.
- In Asia Pacific, standalone software in the corporate sector, after experiencing faster short-term growth compared to other regions, is expected to witness a relative slowdown, while other regions maintain steady growth rates in standalone software for Corporate.
- Europe is projected to have the slowest growth among all regions, with a CAGR of 7.5% from 2025 to 2030, driven by weaker demand for Surveillance/Security/Life Safety and Digital Signage solutions.

# Video Displays

## FLAT PANEL DISPLAY/TVS/MONITORS

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 10,429 | 11,267 | 11,804 | 12,482 | 13,348 | 13,726 | 13,959 | 14,076 | 3.6% |
| ASP ($) | 1,853 | 1,807 | 1,768 | 1,737 | 1,716 | 1,704 | 1,698 | 1,695 | -0.8% |
| Revenue ($M) | 19,324 | 20,360 | 20,870 | 21,686 | 22,912 | 23,389 | 23,700 | 23,865 | 2.7% |

**Short-term (2025-2026)**

- The global flat panel display market is projected to experience significant growth, with an anticipated increase of 4.8% from $20.4 billion last year to an estimated $20.9 billion in 2025. While the LCD market is stabilizing, total revenue figures have fallen below previous forecasts, primarily due to declining prices.
- IFP/touch displays maintain a dominant position in the market, particularly within the corporate and education sectors. However, there is a noticeable expansion into other sectors, such as public spaces, retail, and transportation. This growth is driven by the integration of advanced hardware, including sensors, cameras, and kiosks.
- In the corporate IFP/touch display market, Projected Capacitive (P-Cap) touch technology has been predominantly favored for its superior touch sensitivity. Nevertheless, Infrared (IR) touch technology has gained a significant market share due to its improved cost competitiveness and enhanced touch sensitivity over time.

**Medium/Long-term (2027-2030)**

- Innovation driven by AI continues to shape both the corporate and education markets while also making forays into sectors like retail.
- Addressing vertical-specific requirements (conference/collaboration rooms, education Interactive White Boards (IWBs), kiosks, digital signage, etc.) for LCDs remains essential, alongside the integration of additional hardware such as cameras and video bars, as well as strategic software partnerships.

**ASP Trends**

- The price of display panels, particularly large IFP/touch displays, signage, and LCD videowalls with bezels ≤0.99mm, is declining, but shipments are decreasing, especially in China.
- Manufacturers are adjusting yield rates to stabilize prices amid concerns over tariffs, which are also causing some brands to build strategic inventories. This could lead to increased shipments in early 2025.

- Chinese manufacturers fear tariffs may raise prices in the U.S., benefiting non-Chinese brands. Firms that stockpiled materials in Vietnam for a 25% tariff on Mexican imports may now have excess inventory.
- Production costs for small and mid-sized TVs are lower in China or Vietnam, potentially leading to higher prices and reduced demand, pushing consumers toward premium brands like Samsung and LG made in Mexico. The Trump Administration's US executive order from April 2, 2025, has favored companies with operations in Mexico.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The Education and Retail sectors are crucial for the public display market, particularly IFP/touch displays, with growth expected in China, Japan, and India due to increased tourism and advancements in educational infrastructure.
- LCD technology will remain dominant in digital signage for the next two years; especially as larger displays gain market share in developing regions.
- The rise of hybrid learning is driving demand for interactive classroom technologies, while corporate settings may see increased demand for meeting room hardware as employees return to offices.
- Despite a global decline in LCD videowalls in favor of LED, some demand for LCDs persists in specific environments, such as command and control, where high resolution is still required, particularly for budgets that cannot accommodate direct-view LED (dvLED) displays.
- In China, revenue from IFP/touch displays is down, affected by weak demand and no dedicated funding for education. Conversely, there is growth in signage displays across retail, public spaces, hospitality, and healthcare, boosted by tourism recovery.
- India is expected to lead economic growth in Asia, while North America faces labor market challenges, and Western Europe is projected to grow despite recession risks.
- Eastern Europe is impacted by the Russia-Ukraine conflict. Additionally, high inflation is hindering projects in countries like Turkey.
- In the Middle East, growth is seen in sectors such as retail, public space, and hospitality sectors, particularly in Saudi Arabia and the UAE.

### Medium/Long-term (2027-2030)

- LCD video walls are likely to be gradually replaced by LED walls as cost differences shrink. Despite a downward trend in shipments, LCDs will remain stable due to their diverse applications.
- The retail sector is experiencing strong investments in signage and displays, including out-of-home advertising, LCD video walls, and self-service kiosks.
- In control rooms, budgets are largely stable, but there are new opportunities emerging for both LCD video walls and fine pixel pitch (FPP) LED video displays, as pricing becomes increasingly competitive. Notably,

competition is intensifying between these two display types, particularly in mission-critical applications.

- For small to medium conference rooms, IFP/touch displays will remain dominant, while all-in-one (AIO) LED displays with 21:9 or 32:9 ratios are gaining popularity for larger meetings.
- The hospitality industry is also investing in upgraded in-room TVs and digital signage to enhance guest experience.
- With the return of events and venues to pre-pandemic levels, the outlook for technology renovations, including digital signage, is positive.
- The growth of electric vehicle (EV) charging stations is creating opportunities for digital out-of-home advertising, supported by the U.S. Department of Transportation's initiative to expand the EV charging network.

## LED VIDEO DISPLAYS

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 1,766 | 1,958 | 2,160 | 2,343 | 2,601 | 2,863 | 3,127 | 3,395 | 9.5% |
| ASP ($) | 3,241 | 3,099 | 3,085 | 3,216 | 3,351 | 3,489 | 3,625 | 3,762 | 4.0% |
| Revenue ($M) | 5,724 | 6,067 | 6,664 | 7,534 | 8,716 | 9,988 | 11,335 | 12,773 | 13.9% |

#### Short-term (2025-2026)

- The global LED video display market continues to be dominated by the FPP, 2.00–4.99mm, and 5.00–9.99mm categories, which together accounted for 95% of total revenue. The FPP category has a market share of 52.5%.
- Innovation in COB (Chip on Board) technology and MIP (MicroLED in Package) technologies is driving demand for higher resolutions and lower power consumption, particularly for ≤0.99mm products, which are gaining traction in corporate settings.
- In the outdoor display market, total revenue—including LCD >1000 nits and LED displays with a pixel pitch of <=4.99 mm—is forecasted to surpass 2021 levels. The revenue share of fine pixel pitch (FPP) LED video displays is consistently increasing. Concerns related to power consumption in high-brightness FPP LED video displays can be mitigated by utilizing the MIP method with micro-LEDs, which generate less heat, or by applying COB flip chip technology. These methods also enhance picture quality by providing higher brightness and wider viewing angles, achieved through the use of flip-chip or active matrix (AM) technology.
- Demand for rental LED products is expected to rise significantly in 2025 due to live events.

#### Medium/Long-term (2027-2030)

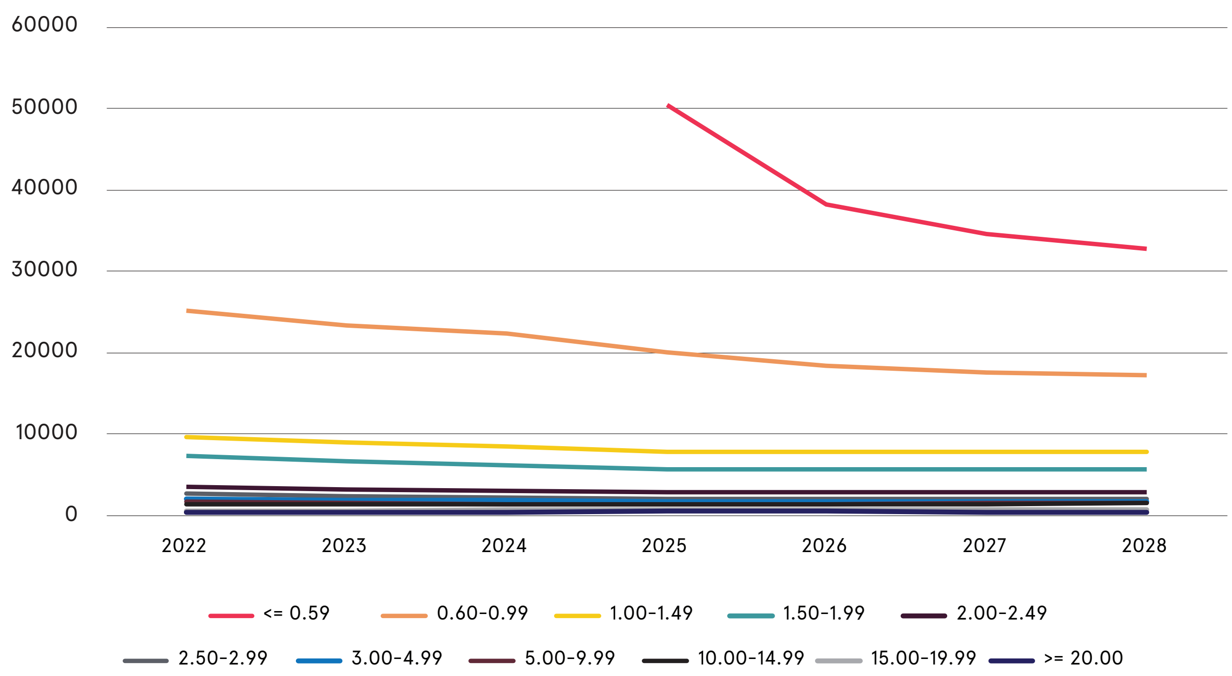
- Leading brands are launching more affordable products while focusing on high-quality LED displays, especially for FPP applications.

- Investment in micro and mini LED production is slowing due to weak demand, and further price drops in the ≤0.99mm category are expected, particularly for COB and MIP displays.
- The micro LED market is set for significant growth, particularly in North America, Eastern Europe, and the Middle East and Africa, with a predicted 44.0% CAGR from 2024 to 2028. This growth is driven by rising demand for control rooms, corporate signage, and public spaces.
- Despite challenges in production efficiency and low yield rates, suppliers continue to invest in micro-LED technology. Brands are actively promoting standardized LED displays at lower prices to replace traditional LCD video walls in control rooms. Additionally, some vendors are increasing shipments of small pixel pitch displays across various regions.
- In the Middle East, companies have partnered with a local firm to produce LED products in line with the "Made in Saudi" and Saudi Vision 2030 initiatives. Others have also established a service center in Riyadh to meet growing demand and are participating in regional trade shows to expand their presence in the LED display market.

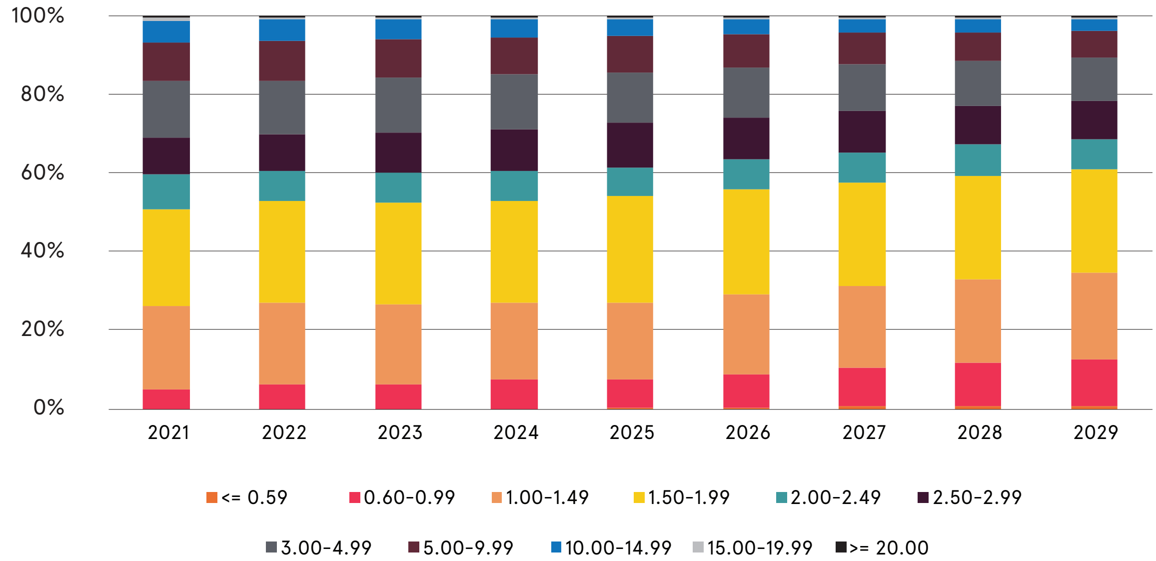
## ASP Trends

- The ASP of LED video displays, particularly in the FPP category, is expected to decline by 2025, although it will still be higher than 90-inch or larger LCDs. Decreasing costs of LED chips and materials are driving this trend, with recovering demand for sub-1mm products in control rooms.

### LED Video ASP Forecast by Pixel Pitch, 2022-28



## Revenue Share




- Growing smart city initiatives in various regions are likely to boost FPP product demand in control rooms and data centers, leading to increased shipments and lower prices.
- High-end AIO products are adopting ≤0.9mm pixel pitch and advanced technologies, further reducing costs.
- Continued investment in mini and micro-LED technologies is projected to lead to further declines in ASPs for products with ≤0.9mm pixel pitch.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

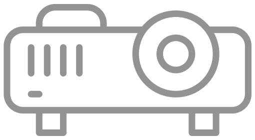
- The retail sector is recovering across most regions, with strong growth expected in Asia and Oceania, Eastern Europe, the Middle East and Africa, and Latin America. However, China, North America, and Japan may see revenues remain below 2020 levels due to price competition, especially in China.
- In 2024, major international sporting events led to upgrades in sports displays, boosting demand for indoor sports and e-sports, particularly in Western Europe, the Middle East and Africa, and North America, with outdoor sports display shipments anticipated to rise in 2025.
- While regions like the Middle East, Africa, and North America are seeing growth, China, Asia and Oceania, and Western Europe are experiencing slower increases, with notable growth from India, the Philippines, and Vietnam. The <=0.99mm pixel pitch segment, used in control rooms and corporate signage, is price-sensitive, with LCD video walls gaining popularity. In China, demand is limited by budget constraints. Meanwhile, Turkey, Kazakhstan, Poland, Uzbekistan, and Romania are emerging markets for LED companies due to supportive policies for smart city development.

### Medium/Long-term (2027-2030)

- China's 2024 action plan aims for a 25% investment increase by 2027 in various sectors, enhancing energy efficiency and supporting low-power LED display growth.
- Global brands are investing in control rooms and data-monitoring centers across North America, Europe, Asia, Oceania, and Africa.
- Demand for Corporate Signage is expected to rise as the ASP of LED AIO products declines, alongside their easy installation and compatibility with various software systems, giving them an edge over large LCD displays.
- In public spaces, demand is rising for traditional products, and LED AIO displays due to the growth of smart campuses and communities, with significant shipment increases expected from 2025 to 2028.
- The transportation sector in developed markets, including Western Europe, North America, and Japan, is recovering at a gradual pace. In contrast, developing markets, especially in Asia and Oceania, are seeing rapid growth.

# Video Projection

## PROJECTORS (DLP, LCOS, LASER, ETC.)



### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 3,354 | 2,928 | 2,822 | 2,851 | 2,876 | 2,869 | 2,790 | 2,714 | -0.8% |
| ASP ($) | 1884 | 1883 | 1879 | 1854 | 1851 | 1841 | 1837 | 1824 | -0.6% |
| Revenue ($M) | 6,318 | 5,514 | 5,302 | 5,287 | 5,324 | 5,281 | 5,125 | 4,951 | -0.1% |

### Short-term (2025-2026)

- The projector market (including DLP, LCOS, laser, and others) declined by 3.8%, falling from $5.5 billion to $5.3 billion in 2025. This contraction underscores a broader market slowdown, largely driven by reduced government-funded AV investments.
- Within the education sector, K-12 continues to be a key driver of projector demand, supported by government and federal funding aimed at enhancing digital learning infrastructure.
- A gradual transition toward higher resolutions is underway, with 4K projectors becoming more common, although HD models continue to maintain stable demand.

- In the professional market, laser projectors are rapidly replacing traditional lamp-based models. Their longer operational life and lower maintenance requirements are reshaping replacement cycles and extending equipment refresh timelines.

### Medium/Long-term (2027-2030)

- The 2026 FIFA World Cup is expected to provide a significant boost to the projector market in the Americas, driving demand across various entertainment and live event applications.
- The growing affordability of advanced display technologies is accelerating the adoption of native 4K projectors across a broader range of segments, while 8K models are beginning to establish a foothold in premium and niche applications.
- The demand for projectors in immersive installations and broadcast environments continues to rise, driven by the need for high-definition user experience.

### ASP Trends

- Sharp price declines among larger-screen LCDs, particularly in late 2024 and 2025, are intensifying pressure on B2B projector segments. Additionally, the growing availability of chip-on-board direct-view LED models and significant price drops in dvLED displays are challenging the role of projectors in rental, staging, and fixed-installation entertainment venues.
- In the consumer market, prices for large-format LCD TVs—ranging from 75 inches up to 98-inch class models—have declined rapidly. To offset this, manufacturers have introduced premium offerings such as OLED, quantum dot, and direct-view LED displays to drive revenue growth. However, this shift has further accelerated price reductions for lower-tier LCD TVs, directly impacting demand for home theater projectors.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- New growth opportunities are emerging in the entertainment and live events sector, driven by increasing demand for immersive art experiences, museum exhibits, and large-scale installations. These applications typically require high-brightness projection, contributing to a rise in average selling prices (ASPs) for higher-end segment. This growth in the premium segment helps to balance out the more significant price decreases observed in mainstream projectors targeted at the K-12 education and corporate learning sectors.
- The media and entertainment industry are experiencing strong momentum, with XR technologies increasingly leveraged to deliver immersive and interactive content experiences. This evolution is driving greater utilization of projectors in production environments, by increasing the use of advanced production management tools to enhance operational efficiency and workflow integration.

### Medium/Long-term (2027-2030)

- Although interactive flat panel displays (IFPDs) have gained strong traction in the K-12 education segment, projectors are expected to maintain a substantial role across the wider education landscape. In higher education especially, projectors remain a preferred solution for large-format displays due to their cost-effectiveness, space-saving retractability, and alignment with institutional budget limitations.

- Globally, K-12 sector spending is projected to rise from late 2026 onwards, aligning with the anticipated refresh cycle for projectors and other AV equipment purchased during the COVID-19 period.
- In higher education, spending remains a key component of the education solutions market. However, private sector investment is expected to decline due to a decline in first-year college enrollment globally. These trends are projected to remain below pre-COVID levels in the long term and are expected to primarily impact on the higher education sector, a critical vertical for +5,000-lumen projection solutions.

## PROJECTION SCREENS

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 4,086 | 3,825 | 3,725 | 3,768 | 3,808 | 3,837 | 3,862 | 3,836 | 0.6% |
| ASP ($) | 1173 | 1204 | 1215 | 1230 | 1220 | 1196 | 1165 | 1129 | -1.5% |
| Revenue ($M) | 4,793 | 4,605 | 4,526 | 4,635 | 4,646 | 4,588 | 4,499 | 4,331 | -0.9% |

#### Short-term (2025-2026)

- Projection Screens declined from $4.6 billion to $4.5 billion in 2025, a 2.5% decrease due to a shift in preference towards direct-view displays.
- The projection screen market is expected to remain steady through 2025, with growth expected from 2026 onward, driven by major sporting events and improving geopolitical conditions. Additionally, the rising adoption of ambient light-rejecting (ALR) screens and the increasing use of projector screen paints are anticipated to support market recovery.

#### Medium/Long-term (2027-2030)

- The market is expected to see a slump post-2027 as the refresh cycle from earlier projector installations tapers off, and direct-view display technologies continue to gain traction due to declining prices, easier installation, longer replacement cycle, and reduced maintenance requirements, further diminishing the reliance on traditional projection screen solutions.

#### ASP Trends

- The Average Sales Price (ASP) for projection screens shows a unique pattern over the forecast period:

### Short-term (2025-2026)

- ASP increases from $1,173 in 2023 to $1,230 in 2026
- This represents a steady upward trajectory in the early years
- Medium/Long-term Trend (2027-2030)
- ASP begins declining from $1,220 in 2027 to $1,129 in 2030
- Overall CAGR of -1.5% for the 2025-2030 period

### Key Factors Influencing ASP Trends

- **Market Concentration in Higher-End Products:**
  - The projection market is increasingly focused on larger screen sizes (110-inch and above)
  - Smaller sizes (below 80-inch) are being replaced by flat panel displays
  - This shift toward premium, larger screens supports the initial ASP increase
- **Long-term Market Evolution:**
  - As noted in the context, projection screens will likely follow the same trend as projectors: "volume down, but value only steadily falling as ASP increases with concentration in higher specification, larger size set-ups"
  - The threshold where FPDs become more economical than projection may rise over time
  - Most popular projection screen sizes may gradually increase
  - The ASP trend reflects the projection screen market's evolution toward higher-end, specialized applications while facing increasing competition from alternative display technologies in traditional segments.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The demand for projection screens will remain strong in the Education sector, bolstered by the demand within higher education institutions, driving usage in the lecture halls. However, the rising adoption of interactive flat panel displays (IFPDs) in smaller classroom settings presents growing competition, gradually reshaping display preferences across the academic landscape

### Medium/Long-term (2027-2030)

- Ongoing innovations in projection screen and projector technologies are expanding their usability beyond traditional settings. Enhanced brightness handling and improved screen materials make projection viable in well-lit indoor and outdoor environments, paving the way for new use cases in digital signage, advertising, and public installations.

# PROJECTION ACCESSORIES

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Revenue ($M) | 4,349 | 4,084 | 3,894 | 3,853 | 3,853 | 3,832 | 3,678 | 3,759 | -0.7% |

### Short-term (2025-2026)

- The market will be dominated by the accelerated shift to laser/LED projectors, driven by enhanced smart features (AI-powered adjustments, integrated OS) and upcoming EU regulations (banning new mercury lamp projectors from early 2027), leading to a significant contraction of the traditional replacement lamp business.
- Growth will be primarily fueled by strong consumer demand for immersive home entertainment (4K, HDR, UST).
- Continued interest in home theater experiences could drive demand for niche accessories like anamorphic lenses. However, the high costs of premium lenses may limit mass adoption. Exploring affordable alternatives or offering financing options could be crucial.
- We anticipate that integration with smart home systems or projector apps could offer new functionalities and user experience.
- Accessory manufacturers and projector vendors will face the dual challenge of navigating the declining profitability of lamp-related accessories while simultaneously contending with increasing competition from ever-improving and larger Flat Panel Displays (FPDs).

### Medium/Long-term (2027-2030)

- Laser/LED technology will become the undisputed standard, with innovation focusing on highly advanced smart features (e.g., superior image optimization, seamless ecosystem integration) and significant growth in specialized applications like Ultra-Short Throw (UST) and large-scale projection mapping.
- Market expansion will be significantly propelled by the projection mapping sector for events and advertising, sustained demand for high-lumen projectors for professional and immersive experiences and increasing adoption in emerging APAC markets.
- We expect demand for specialized lenses like anamorphic and ultra-short throw lenses to grow for specific applications like home theaters and gaming.
- Integration of smart features like auto-focus, zoom adjustments, and ambient light correction could enhance user experience and create new market segments.
- We anticipate the development of more affordable, high-quality lenses to cater to a broader consumer base.
- The primary challenge will be ongoing intense competition from advanced FPD technologies (OLED, QLED, potential

MicroLED), requiring projector and accessory makers to continuously innovate by enhancing SSL projector capabilities and carving out value in specialized and large-screen niches.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- The Education sector will rapidly accelerate its transition to solid-state (laser/LED) projectors, driven by the technology's long-term cost savings, reduced maintenance, and enhanced visual performance, making this a primary solution focus for manufacturers and accessory providers.
- Intense competition with Flat Panel Displays (FPDs) will continue to shape industry offerings, pushing projectors to differentiate through solutions offering unique value propositions like ultra-large screen sizes at a competitive cost-per-inch, superior portability, and specialized capabilities like Ultra-Short Throw (UST) for flexible installations.
- Cinema and live events industries will increasingly standardize on laser projection for new installations and immersive experiences; growth in projection mapping for advertising, entertainment, and corporate events will drive demand for projectors with high brightness, reliability, and specialized lens/software solutions.

### Medium/Long-term (2027-2030)

- A near-complete industry shift to solid-state (laser/LED) projectors across all segments, including budget-conscious sectors, will be cemented by falling prices and regulatory actions (e.g., the EU ban on new mercury lamp projectors). This will fundamentally alter the accessory market to focus entirely on solutions supporting this new lamp-free ecosystem.
- Significant market growth will be driven by specialized, high-value solutions, particularly projection mapping for diverse applications and the creation of large-scale immersive experiences in venues like museums, theme parks, and corporate settings, demanding advanced, high-lumen projectors and integrated solution packages.
- The portable projector market will mature into a mainstream solution for hybrid work, education, and on-the-go entertainment, while the APAC region will lead industry growth, with strong demand for high-performance projectors in entertainment and increasing adoption of budget-friendly laser solutions in education and small businesses.

### Regional Trends and Variations

#### Americas

- The region, particularly North America, will continue its focus on upgrading existing infrastructure to advanced laser-based and high-resolution projection systems, especially within the Education and Corporate sectors, driven by the need for enhanced visual experiences and long-term operational benefits. This trend is expected to continue, significantly impacting demand for lamp-related accessories.
- While a mature market, the Americas will benefit from overall global growth in laser projection technology; the U.S. will remain a substantial market for education projectors, with ongoing adoption of interactive and immersive learning solutions.

### EMEA

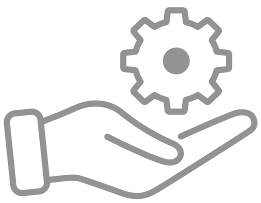
- Growth will be significantly influenced by the EU's ban on placing new mercury lamp-based projectors on the market from February 2027, accelerating the shift to laser/LED technologies across all sectors, particularly in mature European markets focused on energy efficiency and regulatory compliance.
- The Education sector will remain a key driver, supported by initiatives like the EU Digital Education Action Plan. Western Europe will focus on upgrades, while emerging economies in the Middle East and Africa present opportunities for broader adoption of digital projection technologies.

### APAC

- APAC is expected to lead global market growth, driven by strong demand for high-quality laser projection in entertainment, rapid adoption in corporate and education sectors, and significant government and private investment in digital infrastructure.
- The region will exhibit diverse demands, from high-end, high-brightness projectors for premium cinema entertainment and large venues to budget-friendly laser projectors for education, small businesses, and consumer entertainment, particularly in rapidly developing economies like China and India.

# Services

## AV DESIGN



### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Revenue ($M) | 3,209 | 3,399 | 3,569 | 3,745 | 3,918 | 4,082 | 4,244 | 4,397 | 4.3% |

### Short-term (2025-2026)

- AV Design grew from $3.3 billion in 2024 to $3.5 billion in 2025, a 5.0% increase. Fueled by the ever-evolving digital landscape, the AV industry is witnessing considerable expansion. This growth is significantly powered by the integration of AI, which is enabling smarter, more personalized, and increasingly immersive AV experiences through intelligent automation and XR technologies.
- The increasing alignment of AV and IT systems, particularly the move towards AV-over-IP for streamlined content delivery, is a defining trend.

### Medium/Long-term (2027-2030)

- Energy efficiency and sustainability are growing priorities in AV, driven by modern hardware and smart power management. However, broader adoption of comprehensive sustainable practices, including lifecycle management, faces hurdles related to cost.

- Coupled with a growing industry-wide focus on energy efficiency and the adoption of innovations, this convergence is shaping the future of AV design and implementation.

### KEY SOLUTION AND INDUSTRY TRENDS

#### Short-term (2025-2026)

- Strong demand for hybrid work/learning solutions, coupled with expansion in Performance/Entertainment and recovery in Live Events, are key drivers.
- The Conferencing and Collaboration, and Learning sectors are experiencing robust growth, projected around 4-5% due to investment in blended environments.

#### Medium/Long-term (2027-2030)

- The professional AV market is expanding, driven by increased adoption of cloud platforms and unified communications, which is fueling the growth of AV-as-a-Service models. There's also a strong focus on delivering engaging experiences, particularly in sectors like Live Events and Venues.
- While most sectors are experiencing a declining growth rate, the Education and Healthcare sectors, which have also faced downturns, are projected to show a modest recovery by 2030.

## AV INSTALLATION/INTEGRATION

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 27,376 | 28,799 | 30,138 | 31,444 | 32,702 | 33,976 | 35,270 | 36,508 | 3.9% |

#### Short-term (2025-2026)

- As businesses adapt to new workplace models, leveraging AV integrators to strategically integrate high-quality, seamless collaboration solutions with existing infrastructure is essential for maximizing cost savings, streamlining deployment, and ensuring efficient and intuitive meeting experiences for both on-site and remote participants.
- The AV landscape in 2025 is characterized by AI-powered features like auto-tracking cameras and beamforming microphones, unified control systems for simplified management, and smart power management to reduce environmental impact and operational costs.

#### Medium/Long-term (2027-2030)

- High-resolution displays, XR, and spatial audio can significantly enhance commercial and educational environments; however, widespread adoption is currently limited by high costs, complex content creation, and the need to clearly demonstrate return on investment.
- AI-powered systems will automate tasks like content management and diagnostics, while also personalizing user experiences by dynamically optimizing audio, video, and

environmental settings based on real-time analysis.

## KEY SOLUTION AND INDUSTRY TRENDS

### Short-term (2025-2026)

- Security/Surveillance/Life Safety continues to show strong momentum, with growth remaining above 8% making it a key driver of stability and investment in the AV sector.

### Medium/Long-term (2027-2030)

- Despite persistent demand for immersive experiences, the Live Events segment is facing sharp slowdowns, with a possible recovery expected in 2030.
- The Middle East & Africa sustain the strongest long-term AV growth, while other regions stabilize below 4% as markets mature and new installations slow.

# CLOUD

## KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Revenue ($M) | 21,613 | 22,997 | 24,735 | 26,609 | 28,401 | 30,116 | 31,757 | 33,419 | 6.2% |

### Explanation for 2023 revision

- Some of the largest vendors of cloud-based collaboration tools restated their 2023 results during 2024. Hence, we have revised the 2023 historical data downward to reflect these changes, which have impacted revenues and ASP.
- Cloud services grew by 3.5% in 2023 instead of 8.0%, as reported previously.

### Short-term (2025-2026)

- In 2024, revenues from cloud services grew by 6.4%, down from the anticipated 9.1% previously forecast, to reach $23.0 billion. Like with other Conferencing and Collaboration hardware and software, the unexpected slowdown in the corporate vertical during the second half of 2024 impacted revenue.
- Driven by anticipated resumed corporate activity in meeting room refurbishment and office projects, cloud revenues are projected to grow by 7.5% or $24.7 billion in 2025.
- Cloud revenue is expected to be driven by the likes of Microsoft, Zoom, and Cisco Webex, which will bring advanced AI features to the market, charging a premium for these offerings rather than a steep increase in seats, as seen in previous years. Other drivers include the flexibility the cloud brings to video workflows and the launch and adoption of cloud-based device configuration, management and support services.
- In the short term, vendors are expected to launch vertical-specific products tailored to distinct use cases, powered by AI and aiming to enhance market penetration, particularly in cloud-based collaboration tools.

- Demand for unified communications and collaboration solutions for frontline workers is also expected to grow.

### Medium/Long-term (2027-2030)

- Cloud-based collaboration solutions market is anticipated to undergo consolidation in the mid-term. Only the top three players in the market are expected to remain active, instead of the several UCaaS providers that currently exist.
- As the cloud collaboration market gets saturated, growth will be driven by content storage in the cloud, cloud-based management and support services, and security as a service, among other functionalities being migrated to the cloud.

### ASP Trends

- Cloud-based collaboration ASPs to go up as more AI features get added to the UCaaS offerings.

## KEY SOLUTION AND INDUSTRY TRENDS AND REGIONAL VARIATIONS

### Short-term (2025-2026)

- Conference and Collaboration will account for approximately 63% of the market, with Broadcast AV cloud-based solutions representing approximately 20%. The weight of Conference and Collaboration on global Cloud revenue is due to the sheer size of cloud-based collaboration tools market.
- AI-enabled meeting notes, summaries, translation and transcription; action items will see good adoption.
- Building workflows in Microsoft Teams is a rising trend because it allows for the automation of repetitive tasks, streamlining processes, and improving team collaboration within the platform. This is important for various reasons, including saving time, reducing manual effort, and enhancing overall productivity.
- Increasingly, cloud-based media storage is replacing localized physical storage servers, as the former provides flexibility, elasticity and cost efficiency. Other applications driving cloud services include monitoring and maintenance solutions, where many service providers are relying on cloud-based platforms to deliver them.
- Cloud-based service adoption is strongest in North America, which will account for nearly 40% of total revenues, primarily driven by collaboration tools. However, its growth is expected to be the lowest due to higher previous adoption rates. In contrast, Asia Pacific revenues are projected to grow by 11.6% in 2025.

### Medium/Long-term (2027-2030)

- By the end of the forecast, Conference and Collaboration will represent approximately 54% of global revenues, while Broadcast AV will account for 25%. The key drivers include the continuous migration of video workflows to the cloud and the deployment of 5G standalone networks.
- The security, reliability, and scalability of cloud-based solutions are expected to increase in importance.
- Cloud meeting room licensing revenue is anticipated to increase as nonvideo-enabled rooms are upgraded to fully featured meeting rooms.

- Asia Pacific is predicted to remain the fastest-growing market by the end of the forecast period, contributing one-third of global revenue as the region further adopts cloud-based Pro AV solutions.

## MANAGED SERVICES AND MAINTENANCE

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 8,806 | 9,776 | 10,819 | 11,982 | 13,192 | 14,460 | 15,744 | 17,053 | 9.5% |

#### Short-term (2025-2026)

- The Managed Services and Maintenance market is expected to reach $10.8 billion in 2025, up from 9.8 billion in 2024, a growth of 9.9% year-on-year. The market is dominated by Conferencing and Collaboration and Learning, each with almost 20% of the market in 2025. Security/Surveillance/Life Security follows with 18% share of the market.

- Rapid adoption of AVoIP solutions is expected to create higher demand for managed services and maintenance emulating common practices in IT departments. In addition, the increasing complexity and number of endpoints in large AV networks fuels demand for this type of service.

#### Medium/Long-term (2027-2030)

- The Managed Services and Maintenance market is projected to grow at a 9.5% annual rate between 2025 and 2030, driven by increasing demand as Pro AV networks transition to IP. While growth may slow mid-to-long term, it will still exceed the overall Pro AV market expansion.

- As Managed Services and Maintenance are more likely to be classified as an expense, managed services are expected to expand to larger, more complex AV deployments, and driving demand. Costs will shift toward value-added services like help desk support.

### KEY SOLUTION & INDUSTRY TRENDS AND REGIONAL VARIATIONS

#### Short-term (2025-2026)

- Increasingly, hardware vendors are introducing remote device monitoring solutions supporting their own- and third-party devices.

- In the Security/Surveillance/Life Safety sector, security integrators see managed services as the most profitable area, providing predictable revenue through service contracts while strengthening customer relationships for future upgrades or installations.

- Service contracts for video surveillance and access control are generally optional, while intruder alarm systems require such contracts in much of Europe and North America. Some agreements mandate annual service by integrators.

- Asia Pacific will account for almost 42% of the total Managed Services and Maintenance market in 2025. North America and Europe will contribute almost 49% of revenue.

### Medium/Long-term (2027-2030)

- As AV networks fully shift to IP, adopting AI functionality will enhance predictive capabilities and enable preemptive maintenance. Managed services are expected to integrate with AV installations by the forecast period's end.
- The integration of Control Systems with Conferencing and Collaboration products has begun in the enterprise sector, driving demand for managing more endpoints and solutions. This trend is expected to extend to small and medium-sized businesses, with managed services projected to grow at a 10.1% CAGR from 2025 to 2030.
- Managed Services and Maintenance services for Digital Signage solutions are expected to experience the strongest CAGR between 2025 and 2030 at 11.7%. Touchless signage, interactivity, and immersive experiences across industries will drive demand for maintenance services supporting these solutions.
- Embedded sensors will transform security equipment by enabling condition-based monitoring. AI-driven predictive maintenance will anticipate failures, optimizing asset reliability and performance.
- Asia Pacific is expected to gain roughly two percentage points in managed services market share by the forecast period's end, driven by its higher annual growth rate compared to other regions.

## RENTAL & STAGING

### KEY TECHNOLOGY TRENDS, MARKET DRIVERS, AND CHALLENGES

| MEASURE | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | CAGR 25-30 |
|---|---|---|---|---|---|---|---|---|---|
| Units (thousands) | 3,765 | 4,115 | 4,358 | 4,603 | 4,856 | 5,117 | 5,381 | 5,649 | 5.3% |

### Short-term (2025-2026)

- The AV rental industry has rapidly embraced digital transformation, shifting from traditional models to tech-driven solutions. This evolution, along with new rental options, provides easier access to high-quality AV equipment. The market is further expanding due to innovations like high-resolution displays and wireless transmission, requiring businesses to stay updated with these trends to remain competitive.
- Advanced display technologies such as Micro LED and OLED, as well as High Dynamic Range (HDR) standards, are becoming essential in rental equipment to meet the growing expectations for enhanced and realistic visuals.

#### Medium/Long-term (2027-2030)

- The growth of virtual and hybrid events, alongside increasing AV use in retail, presents significant opportunities for AV rentals. These sectors demand advanced solutions like HD cameras, streaming equipment, and digital displays.
- While technology is crucial, thriving in the competitive AV rental market also requires efficient logistics, a strong inventory, and excellent customer support. Prioritizing innovation, adaptability, and a customer-centric approach will be essential for long-term success in seizing these expanding opportunities.

### KEY SOLUTION AND INDUSTRY TRENDS

#### Short-term (2025-2026)

- The AV rental market is seeing increased demand due to the rise of virtual events and video conferencing.
- Energy & Utility and Hospitality industries drive short-term Rental & Staging AV growth, reflecting rising investment in live display tech and event-based communication, while sectors like Education remain volatile with uneven recovery.

#### Medium/Long-term (2027-2030)

- Middle East & Africa leads sustained long-term growth in Rental & Staging, consistently outperforming all regions with rates near or above 9%, driven by rising demand for large-scale events and infrastructure modernization.
- High upfront costs for quality equipment, rapid technological obsolescence, and intense competition create significant challenges for AV rental businesses.

# 2025 IOTA & Distribution Channel Research Approach

### Primary Research

- Interviews with equipment and software vendors and key channel members for unit shipment and revenue information.
- Leverage Informa Tech's (Omdia and Canalys) existing research portfolio and analyst expertise in ProAV, Enterprise IT, Media & Entertainment, Esports, AR/VR/XR, Video Surveillance, Control Rooms, Consumer, Healthcare, and Service Provider industry.
- End User Purchase Expectation (leverage Omdia's B2B surveys for IT enterprise customers),

### AVIXA's Channel Survey

- Expanded survey of AVIXA's SI base in all regions for industry, solution and channel share and margins by product, segments, and regions
- End User Purchase Expectation (additional information incorporated from AVIXA's Market Opportunity Analysis Reports - MOAR)
- Input from Omdia's Channel Research (Informa Tech's Channel Futures + Canalys)
- Current distribution channel structure, roles, and positioning to address the changing ProAV customer needs.
- Competition and learnings from the IT Enterprise channel

### Macroeconomic Research

- S&P Global's Economics & Country Risk, country intelligence, sector economics, cost, and prices.

### Secondary Research

- Information on product, vendor, solutions, industry, and channel.

### Database and Market Analysis Output

- Core database with Solution and Industry pivots by Products, Region, Sub-region/Country.
- Extensive database support documents to detail and clarify assumptions, reasons for differences in growth rates, and impact and uncertainty of major trends. The analysis will be provided at solution, industry, and segment/product level. New this year, Omdia will include supporting unit shipment information for key segments/products in the market analysis section.

# IOTA Vendor List

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| 22Miles | Standalone software | Standalone Software |
| 360 Insta | Capture & Production Equipment | Videoconferencing Cameras |
| Absen | Video Displays | LED Video Displays |
| Acer | Video Projection | Projectors |
| Activu | Standalone software | Standalone Software |
| Adamson | Audio Equipment | Speakers |
| Advantech | Content Management HW | AV Servers |
| AG Neovo | Video Displays | Flat Panel Display (ProAV) |
| AJA Video systems | Content Management HW | Media Servers |
| Akamai | Content Management HW | Media Servers |
| Akamai | Content Management HW | Media Storage |
| Akamai | Services | Cloud Services |
| Allen & Heath | Audio Equipment | Digital Signal Processors |
| Allen & Heath | Audio Equipment | Mixing Consoles |
| Amino | Content Management HW | Media Players |
| AOC | Video Displays | Flat Panel Display (ProAV) |
| AOC | Video Displays | Flat Panel Display TVs |
| AOpen America | Content Management HW | Media Players |
| Aoto | Video Displays | LED Video Displays |
| Ashly | Audio Equipment | Amplifiers |
| Ashly | Audio Equipment | Digital Signal Processors |
| AtlasIED | Audio Equipment | Speakers |
| Audinate | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Audio-Technica | Audio Equipment | Headphones, Headsets & Earsets |
| Avenue | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Aver | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Aver | Capture & Production Equipment | Videoconferencing Cameras |
| AVI/SPL | Services | Cloud Services |
| Avid | Content Management HW | Media Storage |
| AWS | Content Management HW | Media Servers |
| AWS | Content Management HW | Media Storage |
| AWS | Services | Cloud Services |
| Axis Communications | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Azure | Content Management HW | Media Storage |
| Barco | Control & Collaboration | Collaboration Systems (Hardware/ Software) |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Barco | Control & Collaboration | Control Systems |
| Barco | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Barco | Standalone software | Standalone Software |
| Barco | Video Displays | LED Video Displays |
| Barco | Video Projection | Projectors |
| BenQ | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| BenQ | Video Displays | Flat Panel Display (ProAV) |
| BenQ | Video Projection | Projectors |
| Beyerdynamic | Audio Equipment | Headphones, Headsets & Earsets |
| Biamp | Audio Equipment | Audio Conferencing |
| Biamp | Audio Equipment | Digital Signal Processors |
| Biamp | Audio Equipment | Speakers |
| BirdDog | Capture & Production Equipment | Videoconferencing Cameras |
| Black Box | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Black Box | Standalone software | Standalone Software |
| BlackMagic Design | Capture & Production Equipment | Camera (Production) |
| BlackMagic Design Design | Content Management HW | Media Servers |
| Bolin | Capture & Production Equipment | Videoconferencing Cameras |
| Bosch | Audio Equipment | Audio Conferencing |
| Bosch | Audio Equipment | Speakers |
| Bose | Audio Equipment | Amplifiers |
| Bose | Audio Equipment | Audio Conferencing |
| Bose | Audio Equipment | Digital Signal Processors |
| Bose | Audio Equipment | Headphones, Headsets & Earsets |
| Bose | Audio Equipment | Speakers |
| Brightsign | Content Management HW | Media Players |
| BroadSign International | Standalone software | Standalone Software |
| Canon | Capture & Production Equipment | Camera (Production) |
| Canon | Video Projection | Projectors |
| Carrier | Control & Collaboration | Control Systems |
| Changhong | Video Displays | Flat Panel Display (ProAV) |
| Changhong | Video Displays | Flat Panel Display TVs |
| Changhong | Video Projection | Projectors |
| Chinese Tier II brands | Video Displays | LED Video Displays |
| Chirstie | Content Management HW | AV Servers |
| Christie | Content Management HW | Media Servers |
| Christie Digital | Standalone software | Standalone Software |
| Christie Digital | Video Projection | Projectors |
| Cinemassive | Standalone software | Standalone Software |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Cineversum | Video Projection | Projectors |
| Cisco | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Cisco | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Cisco | Capture & Production Equipment | Videoconferencing Cameras |
| Cisco | Video Displays | Flat Panel Display (ProAV) |
| Clair Brothers | Audio Equipment | Speakers |
| Clear-Com | Audio Equipment | Audio Conferencing |
| ClearOne | Audio Equipment | Audio Conferencing |
| ClearOne | Audio Equipment | Microphones |
| ClearOne | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Coda Audio | Audio Equipment | Speakers |
| Conrac | Video Displays | Flat Panel Display (ProAV) |
| CreateLED | Video Displays | LED Video Displays |
| Crestron | Audio Equipment | Audio Conferencing |
| Crestron | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Crestron | Content Management HW | Media Players |
| Crestron | Content Management HW | Media Servers |
| Crestron | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Crestron | Control & Collaboration | Control Systems |
| Crestron | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Crestron NVX | Standalone software | Standalone Software |
| d&b Audiotechnik | Audio Equipment | Amplifiers |
| d&b Audiotechnik | Audio Equipment | Speakers |
| Dahua | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Dahua | Content Management HW | Media Servers |
| Dahua | Video Displays | Flat Panel Display (ProAV) |
| Daktronics | Video Displays | LED Video Displays |
| dB Technologies | Audio Equipment | Speakers |
| Dell | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Dell Technologies Dell EMC) | Content Management HW | Media Storage |
| Delta / Vivitek | Video Projection | Projectors |
| Digital Projection | Video Projection | Projectors |
| Donview | Video Displays | Flat Panel Display (ProAV) |
| DPA | Audio Equipment | Microphones |
| Dynacord | Audio Equipment | Amplifiers |
| Dynacord | Audio Equipment | Speakers |
| Dynasign Corporation | Standalone software | Standalone Software |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Eastern Accoustic Works (EAW) | Audio Equipment | Speakers |
| Eiki | Video Projection | Projectors |
| Electro-Voice | Audio Equipment | Amplifiers |
| Electro-Voice | Audio Equipment | Speakers |
| Epson | Video Projection | Projectors |
| Evertz | Content Management HW | AV Servers |
| Extron | Content Management HW | Media Servers |
| Extron | Control & Collaboration | Control Systems |
| Extron | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Focal | Audio Equipment | Headphones, Headsets & Earsets |
| Four Winds Interactive | Standalone software | Standalone Software |
| FujiFilm | Video Projection | Projectors |
| Genelec | Audio Equipment | Speakers |
| Genetec | Standalone software | Standalone Software |
| Goodview | Video Displays | Flat Panel Display (ProAV) |
| Google | Video Displays | Flat Panel Display (ProAV) |
| GoPro | Capture & Production Equipment | Camera (Production) |
| GTEK | Video Displays | LED Video Displays |
| Haier | Video Displays | Flat Panel Display (ProAV) |
| Haier | Video Displays | Flat Panel Display TVs |
| Hall Technologies | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Hanwha Techwin | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Harman | Audio Equipment | Digital Signal Processors |
| Harman (AKG) | Audio Equipment | Microphones |
| Harman/AKG | Audio Equipment | Headphones, Headsets & Earsets |
| Harman/AMX | Audio Equipment | Audio Conferencing |
| Harman/AMX | Audio Equipment | Speakers |
| Harman/Crown | Audio Equipment | Amplifiers |
| Harman/JBL Pro | Audio Equipment | Speakers |
| Harman/Soundcraft | Audio Equipment | Mixing Consoles |
| Hikvision | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Hikvision | Content Management HW | Media Servers |
| Hikvision | Content Management HW | Media Storage |
| Hikvision | Video Displays | Flat Panel Display (ProAV) |
| Hisense | Video Displays | Flat Panel Display (ProAV) |
| Hisense | Video Displays | Flat Panel Display TVs |
| Hisense | Video Displays | LED Video Displays |
| Hitevision | Video Displays | Flat Panel Display (ProAV) |
| HK Audio | Audio Equipment | Speakers |
| Honeywell | Content Management HW | Media Servers |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Honeywell | Control & Collaboration | Control Systems |
| HP (HP (Poly)) | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| HP (Poly) | Audio Equipment | Audio Conferencing |
| HP (Poly) | Audio Equipment | Headphones, Headsets & Earsets |
| HP (Poly) | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| HP (Poly) | Capture & Production Equipment | Videoconferencing Cameras |
| HPE | Content Management HW | Media Storage |
| Huawei | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Huawei | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Huawei | Capture & Production Equipment | Videoconferencing Cameras |
| Huawei | Video Displays | Flat Panel Display (ProAV) |
| Huawei | Video Displays | Flat Panel Display TVs |
| Huddly | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Huddly | Capture & Production Equipment | Videoconferencing Cameras |
| i3-Technologies | Video Displays | Flat Panel Display (ProAV) |
| Iiyama | Video Displays | Flat Panel Display (ProAV) |
| Imagine Communications | Standalone software | Standalone Software |
| INFiLED | Video Displays | LED Video Displays |
| InFocus | Video Projection | Projectors |
| Intel NUC | Content Management HW | Media Players |
| IOGEAR | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Jabra | Audio Equipment | Headphones, Headsets & Earsets |
| Jabra | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Jabra | Capture & Production Equipment | Videoconferencing Cameras |
| JCI/Tyco | Capture & Production Equipment | Videoconferencing Cameras |
| JCI/Tyco | Control & Collaboration | Control Systems |
| Johnson Controls | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Jupiter | Standalone software | Standalone Software |
| JustAdPower | Content Management HW | Media Players |
| JVC | Video Projection | Projectors |
| Konka | Video Displays | Flat Panel Display TVs |
| Kramer | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Kramer | Content Management HW | Media Players |
| Kramer | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Kramer | Control & Collaboration | Control Systems |
| Kramer | Infrastructure | Signal Routing & Switching (Hardware/ Software) |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| L-Acoustics | Audio Equipment | Speakers |
| LEA Professional | Audio Equipment | Amplifiers |
| Ledman | Video Displays | LED Video Displays |
| Legrand | Infrastructure | Signal Routing & Switching (Hardware/Software) |
| Lenovo | Content Management HW | Media Storage |
| LeTV | Video Displays | Flat Panel Display TVs |
| Leyard | Standalone software | Standalone Software |
| Leyard | Video Displays | LED Video Displays |
| LGE | Video Displays | Flat Panel Display (ProAV) |
| LGE | Video Displays | Flat Panel Display TVs |
| LGE | Video Displays | LED Video Displays |
| LGE | Video Projection | Projectors |
| Liantronics | Video Displays | LED Video Displays |
| Logitech | Audio Equipment | Microphones |
| Logitech | Capture & Production Equipment | Video Conferencing Systems (Hardware/Software) |
| Logitech | Capture & Production Equipment | Videoconferencing Cameras |
| L-Tron | Content Management HW | AV Servers |
| Lumens | Capture & Production Equipment | Videoconferencing Cameras |
| LynTec | Control & Collaboration | Control Systems |
| Mackie | Audio Equipment | Mixing Consoles |
| Martin Audio | Audio Equipment | Speakers |
| MATROX | Infrastructure | Signal Routing & Switching (Hardware/Software) |
| Maxell | Video Projection | Projectors |
| Maxhub | Capture & Production Equipment | Video Conferencing Systems (Hardware/Software) |
| MAXHUB | Video Displays | Flat Panel Display (ProAV) |
| Meyer Sound | Audio Equipment | Speakers |
| Microsoft | Content Management HW | Media Servers |
| Microsoft | Video Displays | Flat Panel Display (ProAV) |
| Milestone Systems | Standalone software | Standalone Software |
| Mouser Electronics | Content Management HW | AV Servers |
| MSFT Teams | Services | Cloud Services |
| NanoLumens | Video Displays | LED Video Displays |
| NDI | Infrastructure | Signal Routing & Switching (Hardware/Software) |
| NEC | Video Displays | Flat Panel Display (ProAV) |
| NEC | Video Displays | LED Video Displays |
| NEC | Video Projection | Projectors |
| Netgear | Infrastructure | Signal Routing & Switching (Hardware/Software) |
| Neutron USA | Content Management HW | AV Servers |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Newline | Video Displays | Flat Panel Display (ProAV) |
| Nexcom | Content Management HW | Media Players |
| Nexo | Audio Equipment | Speakers |
| Nureva | Audio Equipment | Microphones |
| Nureva | Audio Equipment | Speakers |
| Odin | Video Displays | Flat Panel Display (ProAV) |
| Omnivex | Standalone software | Standalone Software |
| Optoma | Video Projection | Projectors |
| Orion | Video Displays | Flat Panel Display (ProAV) |
| Panasonic | Capture & Production Equipment | Camera (Production) |
| Panasonic | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Panasonic | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Panasonic | Video Displays | Flat Panel Display (ProAV) |
| Panasonic | Video Displays | Flat Panel Display TVs |
| Panasonic | Video Projection | Projectors |
| Pelco | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Pelco | Content Management HW | Media Servers |
| Philips | Video Displays | Flat Panel Display (ProAV) |
| Philips | Video Displays | Flat Panel Display TVs |
| Pivot3 | Content Management HW | Media Storage |
| Pixera | Content Management HW | Media Servers |
| Planar | Video Displays | Flat Panel Display (ProAV) |
| Plexus AV | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Powersoft | Audio Equipment | Amplifiers |
| Presonus | Audio Equipment | Mixing Consoles |
| Promethean | Video Displays | Flat Panel Display (ProAV) |
| PTZ Optics | Capture & Production Equipment | Videoconferencing Cameras |
| Purelink | Content Management HW | Media Players |
| QSTech | Video Displays | LED Video Displays |
| Q-Sys | Audio Equipment | Amplifiers |
| Q-Sys | Audio Equipment | Digital Signal Processors |
| Q-Sys | Audio Equipment | Mixing Consoles |
| Q-Sys | Audio Equipment | Speakers |
| RCF | Audio Equipment | Speakers |
| Reflect Systems | Standalone software | Standalone Software |
| Renkus Heinz | Audio Equipment | Speakers |
| Retop | Video Displays | LED Video Displays |
| RGB | Content Management HW | Media Players |
| RGB Spectrum | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Ricoh | Video Projection | Projectors |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| RMG Networks | Standalone software | Standalone Software |
| RTI | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Russound | Audio Equipment | Amplifiers |
| Russound | Audio Equipment | Speakers |
| Samsung | Video Displays | Flat Panel Display (ProAV) |
| Samsung | Video Displays | Flat Panel Display TVs |
| Samsung | Video Displays | LED Video Displays |
| Sansi | Video Displays | LED Video Displays |
| Schneider Electric | Control & Collaboration | Control Systems |
| SeeWo | Video Displays | Flat Panel Display (ProAV) |
| Sennheiser | Audio Equipment | Audio Conferencing |
| Sennheiser | Audio Equipment | Headphones, Headsets & Earsets |
| Sennheisser | Audio Equipment | Microphones |
| Sharp | Video Displays | Flat Panel Display (ProAV) |
| Sharp | Video Displays | Flat Panel Display TVs |
| Shokz | Audio Equipment | Headphones, Headsets & Earsets |
| Shure | Audio Equipment | Headphones, Headsets & Earsets |
| Shure | Audio Equipment | Microphones |
| Siemens | Control & Collaboration | Control Systems |
| SiliconCore | Video Displays | LED Video Displays |
| Skyworth | Video Displays | Flat Panel Display TVs |
| Smart | Video Displays | Flat Panel Display (ProAV) |
| Solid State Logic | Audio Equipment | Mixing Consoles |
| Sonance | Audio Equipment | Speakers |
| Sony | Audio Equipment | Headphones, Headsets & Earsets |
| Sony | Capture & Production Equipment | Camera (Production) |
| Sony | Capture & Production Equipment | Secuitry/Surveillance Cameras |
| Sony | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Sony | Video Displays | Flat Panel Display (ProAV) |
| Sony | Video Displays | Flat Panel Display TVs |
| Sony | Video Displays | LED Video Displays |
| Sony | Video Projection | Projectors |
| Sony | Audio Equipment | Microphones |
| Sony Professional Solutions of America | Standalone software | Standalone Software |
| Spectrio | Content Management HW | Media Players |
| Spectrio | Standalone software | Standalone Software |
| SpinetiX | Standalone software | Standalone Software |
| Stratacache (Scala, enVu, X20 media) | Standalone software | Standalone Software |
| TCL | Video Displays | Flat Panel Display TVs |
| Toshiba | Video Displays | Flat Panel Display (ProAV) |

| VENDOR | SEGMENT | PRODUCT |
|---|---|---|
| Toshiba | Video Displays | Flat Panel Display TVs |
| UCView Media | Content Management HW | Media Players |
| UCView Media | Standalone software | Standalone Software |
| Unilumin | Video Displays | LED Video Displays |
| Uniview | Video Displays | Flat Panel Display (ProAV) |
| Userful | Standalone software | Standalone Software |
| Utelogy | Services | Cloud Services |
| Vaddio | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Vaddio | Capture & Production Equipment | Videoconferencing Cameras |
| VidOvation Corporation | Standalone software | Standalone Software |
| Viewsonic | Standalone software | Standalone Software |
| Viewsonic | Video Displays | Flat Panel Display (ProAV) |
| Viewsonic | Video Projection | Projectors |
| Vivitek | Control & Collaboration | Collaboration Systems (Hardware/ Software) |
| Vivitek (Delta) | Video Projection | Projectors |
| Vizio | Video Displays | Flat Panel Display TVs |
| ViZRT | Infrastructure | Signal Routing & Switching (Hardware/ Software) |
| Vuwall | Standalone software | Standalone Software |
| Watchfire | Video Displays | LED Video Displays |
| WEGENER | Content Management HW | Media Players |
| Xiaomi | Video Displays | Flat Panel Display TVs |
| Yamaha | Audio Equipment | Speakers |
| Yealink | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| Yealink | Capture & Production Equipment | Videoconferencing Cameras |
| Zoom | Services | Cloud Services |
| ZTE | Capture & Production Equipment | Video Conferencing Systems (Hardware/ Software) |
| ZTE | Capture & Production Equipment | Videoconferencing Cameras |

# Definitions

## Segment and Product/Service Definition

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Audio Equipment** | |
| **Audio Conferencing Systems (Hardware/ Software)** | Audioconferencing systems includes speaker phones, conferencing systems, echo cancellers, system interface units and expansion cards, room and group systems, portable systems, and integrated routing switches |
| **Headphones, Headsets & Earsets** | Headphones, headsets, and ear sets used in entertainment, production, monitoring, enterprise telephony, and other applications. Includes call center headsets and in-ear monitors. |
| **Microphones (Wired and Wireless)** | Wired and wireless microphones used in production, entertainment, and professional applications. Includes handheld, tabletop, and chippable or worn form factors. |
| **Speakers** | Speakers utilized in professional, live entertainment, institutional, and production applications. Includes installed, portable, and amplified or PA. Inclusive of more recent speaker iterations with integrated technology (i.e., DSP). |
| **Other Audio Equipment** | Others audio equipment includes cinema audio processor, dedicated digital signal processors (DSPs), amplifiers, assistive listening/sound-field systems, audio mixers/consoles, audio production equipment hardware/software, audio receivers/tuners, intercoms/paging systems, language interpretation systems, telephony & VoIP systems and sound masking/speech privacy systems. |
| | Digital Signal Processors: Hardware-based digital signal processing solutions utilized for entertainment, production, venue, institutional, and other professional audio applications. Does not include software-based DSP solutions or related license revenue. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Capture & Production Equipment** | |
| **Cameras (Conferencing/ Surveillance)** | Cameras for conference room and surveillance markets includes indoor and outdoor cameras such as PTZ, wide angle, dual-tracking, electronically tracking, dome, night vision, and omni-directional zoom, etc. This category also includes USB conference cameras. Residential market and products are not included here. |
| **Cameras (Video Production/ Recording)** | Digital video cameras for broadcast, live events, cinema and television content production and recording including film cameras, digital cinematography, high-end camcorders, ENG news cameras, specialist miniature, and point-of-view cameras (including cameras with built-in robotics), super so-so systems, and system cameras including CCU and camera control. Prosumer camcorders are also included but not consumer grade. |
| **Video Conferencing Systems (Hardware/ Software)** | Videoconferencing systems includes both hardware and integrated software for telepresence end points, desktop system end points, multipurpose room system end points, videophones, all infrastructure including multipoint control units, bridging devices required for video conferences between three or more end points, gatekeepers, gateways, firewalls, and scheduling and management software. This category does not include software-based endpoint solutions. |
| **Other Capture & Production Equipment** | Other capture and production equipment includes document cameras, scalers, switchers and video processors, as well as broadcast grade digital convertors and prosumer-grade equipment sold for professional usage. Residential products are not included here. |
| **Control & Collaboration** | |
| **Collaboration Systems (Hardware/Software)** | Systems for in-person or online collaboration, including wireless presentation systems. Both hardware and software are included due to common bundling of both. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Control Systems** | Control systems include keypads, control panels, touch panel controls, remote controls used in both AV applications and applied integrated systems for energy control, building management, and lighting control. Also includes integrated physical access control include keypads, serial controllers, IP-enabled controllers, and edge-based controllers. Controllers for both commercial and residential segments are included. Fire and intruder control panels are also included. |
| **Environmental** | |
| **Lighting Fixtures (including installed and portable)** | Lighting fixture includes connected ballasts and wireless adapters, connected switches, environmental and light level sensors, occupancy sensors, keypads and HMI screens, and RF luminaires. Lighting fixtures at consumer residential homes are not included but smart home integrated fixtures such as connected LEDs are. |
| **Other Environmental** | Other environmental includes acoustic materials, kiosks, rigging and staging, and shades and drapes as well as networked and controlled motorized window dressings. |
| **Infrastructure** | |
| **Mounts, Stands & Lifts** | Mounts, stands, and lifts includes mounts for flat-panel display and video projector, security and swivel mounts, brackets, display lifts, and projector lifts. Stationary and mobile vertical racks, cabinets, and kits are also included. Differentiated from furniture in that mounting systems are used to support equipment and provide functionality such as lifting, lowering, or simply locking equipment in place. |
| **Other Infrastructure** | All cable types, cable management systems, connectors and adapters, and cable assemblies used for pro AV and AV/IT installations. Fiber optic transmission equipment for audio, video, and data applications is included. Consoles and furniture, power distribution, supplies & cooling systems, and test, measurement and monitoring equipment. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Plates, Panels & Wall Boxes** | Plates, panels, and wall boxes for various input and output connectors, converters for pro AV use and when integrated into overlapping applications such as smart home. |
| **Signal Routing & Switching (Hardware/ Software)** | Signal routing and switching includes signal switchers, transmitters and matrix switchers (routers) that transmit and replicate control information and IP-based AV signals outside of specialist applications (such as broadcast). |
| **Video Displays** | |
| **Flat-Panel Displays, TVs, and Monitors** | Flat-panel displays, TVs and monitors includes all direct-view flat-panel displays such as LCD, OLED, and PDP that are sold through professional distributors, system integrators, and pro AV dealers and are used for digital signage and professional applications. Interactive flat-panel displays with touch overlays sold for pro AV applications are also included in this category. Flat-panel TVs used for home cinema and home theaters requiring custom installation and design are included in this category. Monitors include medical, broadcast, and professional graphics specialty displays. These monitors include clinical review, diagnostic, surgical displays, Grade 1 master monitor, picture monitor, reference monitor, picture viewer, and wave viewer. Generic desktop computer monitors are excluded. |
| **LED Video Displays** | LED video displays use arrays of either SMD or lamp-based LEDs (light emitting diodes) to create tiles of direct-view displays that can then be configured to form a larger custom-sized display. |
| **Video Projection** | |
| **Projectors (DPL, LCOS, Laser, etc.)** | Projectors (DPL, LCOS, laser) include both portable and installed digital video-capable projectors used for conference room, classrooms, large venues, rental staging, and cinema. Ultra-portable projector and personal pico-projectors are not included as these do not require installation. Front projectors used for home cinema and home theaters requiring custom installation and design are included in this category. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Projection Screens** | Projection screens include motorized wall and ceiling screens, folding and staging screens, fixed wall screens, tripod and portable screens for AV, HDTV, multi-aspect ratio, video, widescreen, and letterbox format for front and rear-projection displays. Projector screens for home cinema and home theaters are included. |
| **Projector Accessories (Bulbs, Lenses)** | Projector accessories include bulbs, lenses, and 3D systems. Not included are editors, splicers, rewinders, and maintenance supplies. Projector accessories for commercial and CEDIA products are included. |
| **Video Displays** | |
| **AV Servers** | AV servers are purpose-built, pro AV hardware-specified equipment that is primarily used in the media and entertainment industry. AV integrator and resellers are selling more enterprise-used specialist servers in order to run the software that used to run on purpose-built pro AV devices. |
| **I/O Cards** | I/O cards include all other input-output cards that are sold separately and not integrated into or part of equipment mentioned previously, including for rack-based equipment and in desktop or laptop computers (e.g. Firewire, PCMCIA, USB). |
| **Media Players** | Media players include purpose-built hardware players for applications such as digital signage to play video content on screens. Media players run on a variety of operating systems including Windows, Linux, Android, and iOS and are capable of performing many functions and include features such as upscaling, streaming, interactive, live feeds, beacons, and geo-fencing. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Media Servers** | A media server is a networked physical device that provides share computed functionality, typically containing a central processing unit (CPU), random access memory (RAM), storage, physical network interface, power supply, and management. It allows video and audio data to be ingested, analyzed, accessed, encoded, processed, and outputted automatically or manually from a central location, or to run special applications that allow the user to access the media from a remote location via the internet. The media server contains physical arrangements that allow for CPU, RAM, and physical network interfaces within the server enclosure blade, open compute, rack, and tower. It includes both pro-AV software, specified equipment, and generic IT enterprise-built equipment that are primarily used for AV. |
| **Media Storage** | Media storage is a networked physical device that stores, shares, and archives images, audio, and video data in any media content-related industry. It typically contains a basic central processing unit (CPU), a primary storage device, such as random access memory (RAM), and a secondary storage device, like a solid-state drive (SSD) or hybrid hard drive (HDD). Secondary storage can be removable, internal, or external. Media storage offers media data processing and storing functions automatically or manually from a central location or run special applications that allow the user to access the media from a remote location via the internet. It includes both purpose-built, pro-AV-specific configured equipment, and generic IT enterprise-built equipment that is primarily used for AV. |
| **Services** | |
| **AV Design** | AV design services include all revenue generated by systems integrators, dealers, design-build contractors, distributors, and independent design consultants for system design or planning. |
| **AV Installation/ Integration** | AV installation and integration services include all revenue generated in system build and installation, as well as specific revenue for system integration into existing workflows or technical plants such as integrating AV products into an existing IT networks. |

| PRODUCT/SERVICES | DETAILED DESCRIPTIONS |
|---|---|
| **Managed Services & Maintenance** | Revenues from managed services in pro AV such as cloud services, and for maintenance contracts, extended warranties and life-cycle support, and embedded staff on the customer's premises, as well as training revenues. |
| **Cloud Services** | Revenues from cloud services used for the management and distribution of AV content for collaboration or presentation purposes. This includes licensing of collaboration services like Zoom or Teams that flows through the pro AV channel but excludes strict data storage services used for system back-ups. |
| **Rental & Staging** | Rental and staging includes all service revenue associated with AV products and temporary provision for staged events. Does not include leasing or other long-term direct finance purchases as well as support service revenue. |
| **Standalone Software** | Standalone software includes all software that is not integrated or packaged with other products for AV asset management, design, show control, collaboration, content creation, scheduling, content management, and room management for many solutions such as digital signage, collaboration, cinema, live events, and command and control. Video management software for surveillance and access control software are also included in this category. |

# Solutions Bundle Definitions

| SOLUTIONS | IOTA DEFINITIONS |
|---|---|
| **Command and Control** | Command and control solutions include technology and services used in control rooms across various industries to monitor, manage, or dispatch required resources. Examples include operations center or room, dispatch center, emergency communications center, emergency operations center, network operations center, and/or communications center, among others. |
| **Conferencing and Collaboration** | Conferencing and Collaboration solution includes a combination hardware, software technologies and services that enable communication between two or more sites. These solutions may be sold in the form of bundles or separate components and often include a cloud-based aspect. |
| **Broadcast AV** | Solutions catering to the `audio/video capture' and `audio/video production' of content destined to be disseminated over video networks, theatre exhibition, or streaming services using a transactional, subscriber or ad funded business model. This includes hardware such as Cameras, encoders, video processors, scalers and switchers, managed services & maintenance and software. |
| **Digital Signage** | Digital signage solutions use display, media players, servers, software, and managed services to display content in out-of-home (OOH),and  public environments, and by multiple individuals simultaneously to convey information, advertising, or other forms of messaging. |
| **Learning** | Classroom solutions include audio visual hardware and software products and services that assist teaching in K-12, higher secondary education facilities, and corporate learning. |
| **Live Events** | Live events includes hardware, software, and services to provide turnkey live event audio visual solutions for events and shows or temporary facilities. |

| SOLUTIONS | IOTA DEFINITIONS |
|---|---|
| **Performance/ Entertainment** | Theatre solutions include permanent installations of audio and video equipment in both residential and commercial settings. Examples include cinema, home theatre, and theatre installations in museums, houses of worship, entertainment venues, and so on. Rental and staging equipment for temporary facilities are excluded from this category and covered under Live Events. |
| **Security/Surveillance/ Life Safety** | Includes the following equipment types for professional video surveillance: analog security cameras, DVRs, NVRs, network security cameras, video encoders, video management software (VMS), CS-mount lenses, camera housings, CCTV, controllers and keyboards, and motorized camera positioning mounts. |
| **Other Solutions** | Specialty medical displays such as clinical review, diagnostic, surgical displays, and professional graphics displays. It also includes other solutions not captured above. |

# Vertical Market Definitions

| VERTICAL | DEFINITIONS |
|---|---|
| **Corporate and Finance** | The Corporate industry refers to all business and company pro AV use for daily operations either in offices or as part of the business operations of those corporations. Includes corporate conferencing facilities, but not specialist conference halls. It includes finance service centers and banks. |
| **Education** | Education includes all levels of education and academic research across the world both in public and private sectors. |
| **Energy and Utilities** | The energy and utilities vertical comprises oil and gas, utilities, mining, and renewables segments with most of their subsectors. |
| **Government and Military** | Government and military vertical includes the majority of wider public sector activities and buildings apart from those covered in other segments such as education, healthcare, and transportation. All armed forces-related activities are also included. State-owned public spaces are also included where they are not venues or event locations. |
| **Healthcare** | The healthcare vertical includes all locations where private and public health entities use any pro AV equipment. |
| **Hospitality** | The hospitality vertical includes all types of accommodation and entertainment facilities including hotels, bars, and restaurants. |
| **Media and Entertainment** | The media and entertainment vertical includes all production, editing, and broadcast pro-AV equipment and services across film, games, music, radio, and TV. Digital signage installations in the media and entertainment vertical are not included here. |
| **Residential** | The residential vertical includes all pro AV installations in homes and privately-owned locations, including high-end smart home and installed home theater. |

| INDUSTRY | IOTA DEFINITIONS |
|---|---|
| **Retail** | The retail vertical includes all possible retail locations from supermarkets and malls to large multinational retailers and small-shop owners. |
| **Transportation** | The transportation vertical refers to all infrastructure, sites, and buildings related to public transportation systems by air, land, or sea in both public and private sector ownership. This includes airports, train stations, metro systems, and ports. |

# Geographic Segments

| REGION | SUB REGION |
|---|---|
| Asia-Pacific | **Australasia:** Australia and Rest of Australasia (New Zealand, Papua New Guinea, and the islands of Micronesia and the South Pacific) |
| | **China:** People's Republic of China, Hong Kong and Taiwan |
| | **East Asia:** Japan, South Korea, and the rest of Southeast Asia (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam) |
| | **Indian Subcontinent:** India and the rest of the Indian subcontinent (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka) |
| Europe | **Central Europe:** Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Kosovo, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, and Turkey |
| | **Eastern Europe:** Russia and the rest of Eastern Europe (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) |
| | **Scandinavia:** Denmark, Finland, Greenland, Iceland, Norway, Sweden |
| | **DACH:** Germany and the rest of DACH (Austria and Switzerland) |
| | **Western Europe:** UK, France, Italy, Spain, Portugal, and the rest of Western Europe (Belgium, Ireland, Liechtenstein, Luxembourg, Malta, and the Netherlands) |
| Latin America | **Central America and the Caribbean:** Mexico and the rest of Central America and the Caribbean (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and the countries of the Caribbean) |
| | **South America:** Brazil and the rest of South America (Argentina, Bolivia, Chile, Colombia, Ecuador, Falkland Islands, French Guiana, Guyana, Paraguay, Peru, Surinam, Uruguay, and Venezuela) |
| Middle East and Africa | **Middle East and North Africa:** Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen |
| | **Sub-Saharan Africa:** Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, São Tomé and Príncipe, Tanzania, Togo, Uganda, Zambia, and Zimbabwe |
| North America | Canada and the United States. |

Audiovisual and Integrated Experience Association

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