

SmartHUB Complete Interconnect Drawings

NOTE:
It is recommended that DC power be taken from the emergency (primary) power bus, particularly if engine stop/start events need to be captured.

NOTE:
Audio needs to be hooked into pilot receive audio.

NOTE:
If fitting Flightcell SmartHUB with Flightcell U2C camera, this connection needs to be terminated on J2 with the supplied USB wire.

NOTE:
To interface SmartHUB to DZMx, wire up the WAN Ethernet port to the DZMx as shown. These pins are potentially already wired in to the Flightcell USB/Ethernet connector box, this will be need to unwired from the Flightcell USB/Ethernet connector box on the DZMx connector and rewired to the SmartHUB.

NOTE:
The debug port can be fitted for in-situ maintenance purposes. If fitted it is highly advisable to locate this connector such that it is readily accessible. It is recommended that when connecting to a PC the loopback connections on RTS, CTS, DCD, DTR and DSR are made as shown.

NOTE:
Active level threshold on inputs is 2.4V. i.e. any level below 2.4V translates to a '0' at the micro pin. 2.5V on the inputs is required to guarantee a '1' at the micro pin.

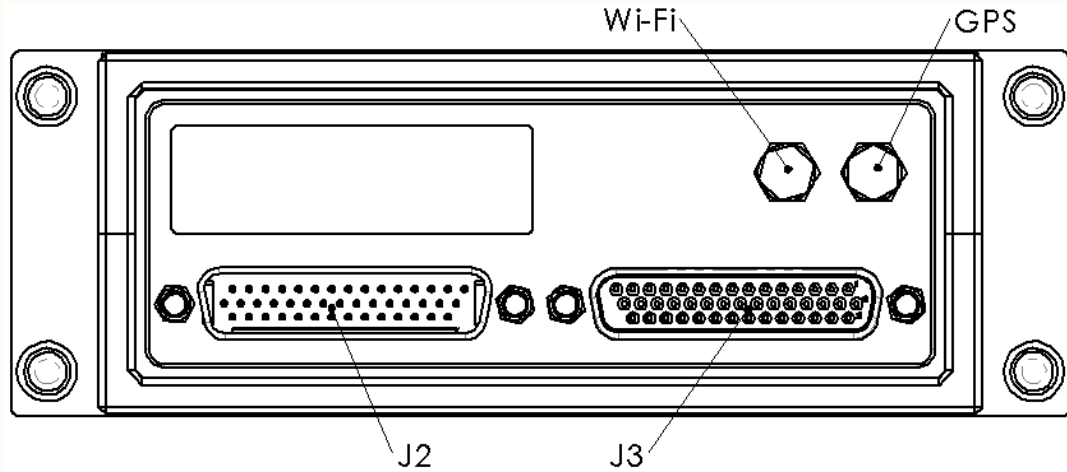
NOTE:
The auxiliary output can be used to switch external loads, e.g. annunciator panel indicator, to indicate SmartHUB is in ON state. Output is capable of switching a 500mA load. The voltage applied to either terminal must not exceed 60VDC. Output provides 1500Vrms isolation between the output terminals and the SmartHUB internal circuitry.

NOTES:
1. Aircraft power cable should be 2 parallel 22AWG (e.g. M22759/34-22-9) or a single 20AWG (e.g. M22759/34-20-9) stranded which splits of at the connector to two 22AWG wires. Connectors are limited to 22AWG wire. Other Cables Should be 22AWG Stranded, screened where indicated e.g. M27500/-24SB2T14.

2. It is recommended that the power ground connections be run seperately to a single earthing point, so as to minimise ground loops.

3. All USB cables should be aviation specific USB eg. PIC_USB2422 or equivalent aviation standard USB cable

4. All Ethernet cable should be aviation specific Ethernet eg. PIC Cable E6A6826 or equivalent aviation standard Ethernet cable



U2C Camera Cable Code	
RED	VCC
WHITE	D-
GREEN	D+
BLACK	GROUND

SYMBOL DESIGNATIONS:
SHIELDED PAIR
SHIELD TERMINATED TO DC GROUND
SHIELDED PAIR
SHIELD FLOATING
TWISTED PAIR
UNIT GROUND
WIRE SPLICED CONNECTION
CAXIAL CABLE

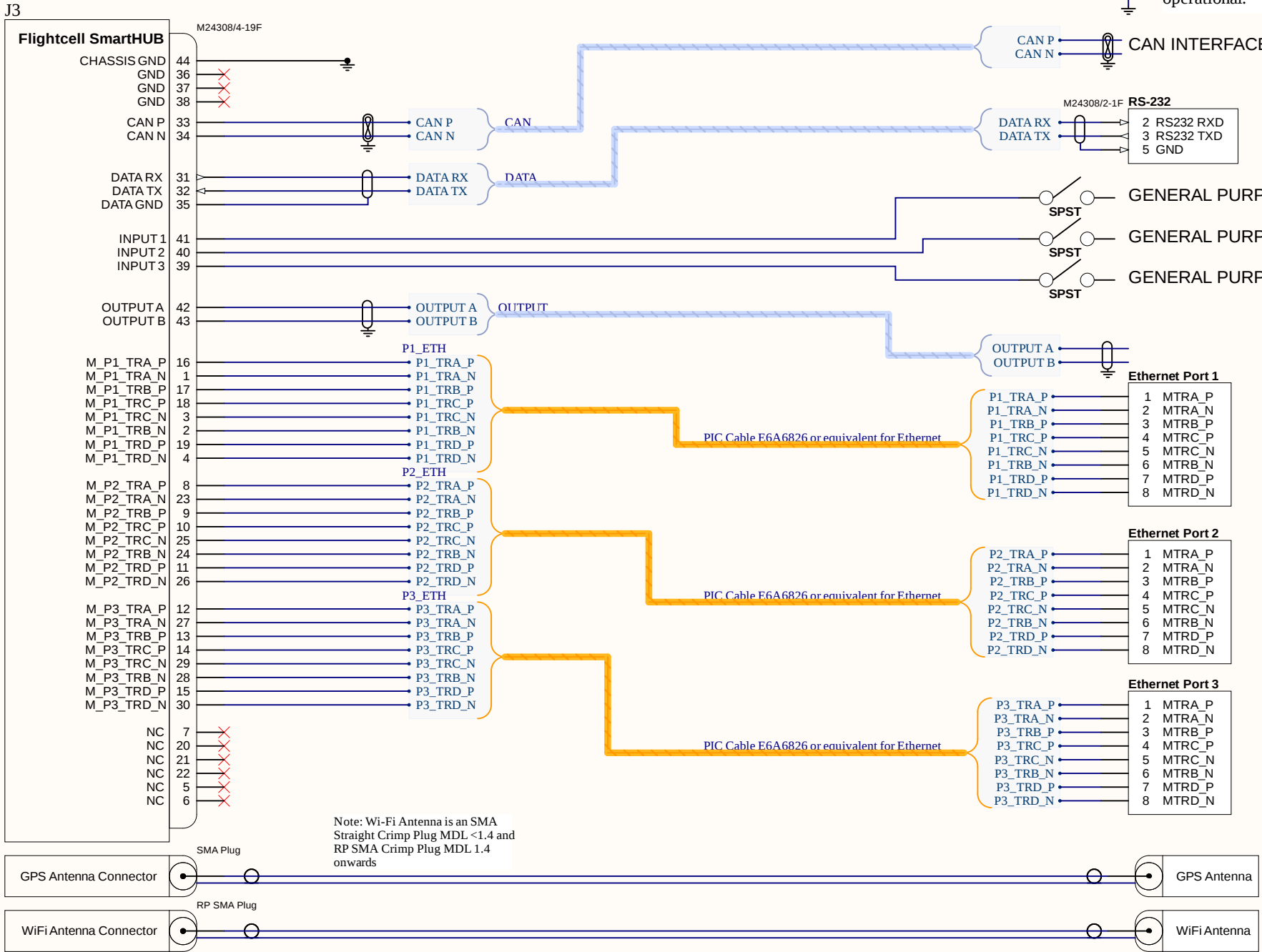
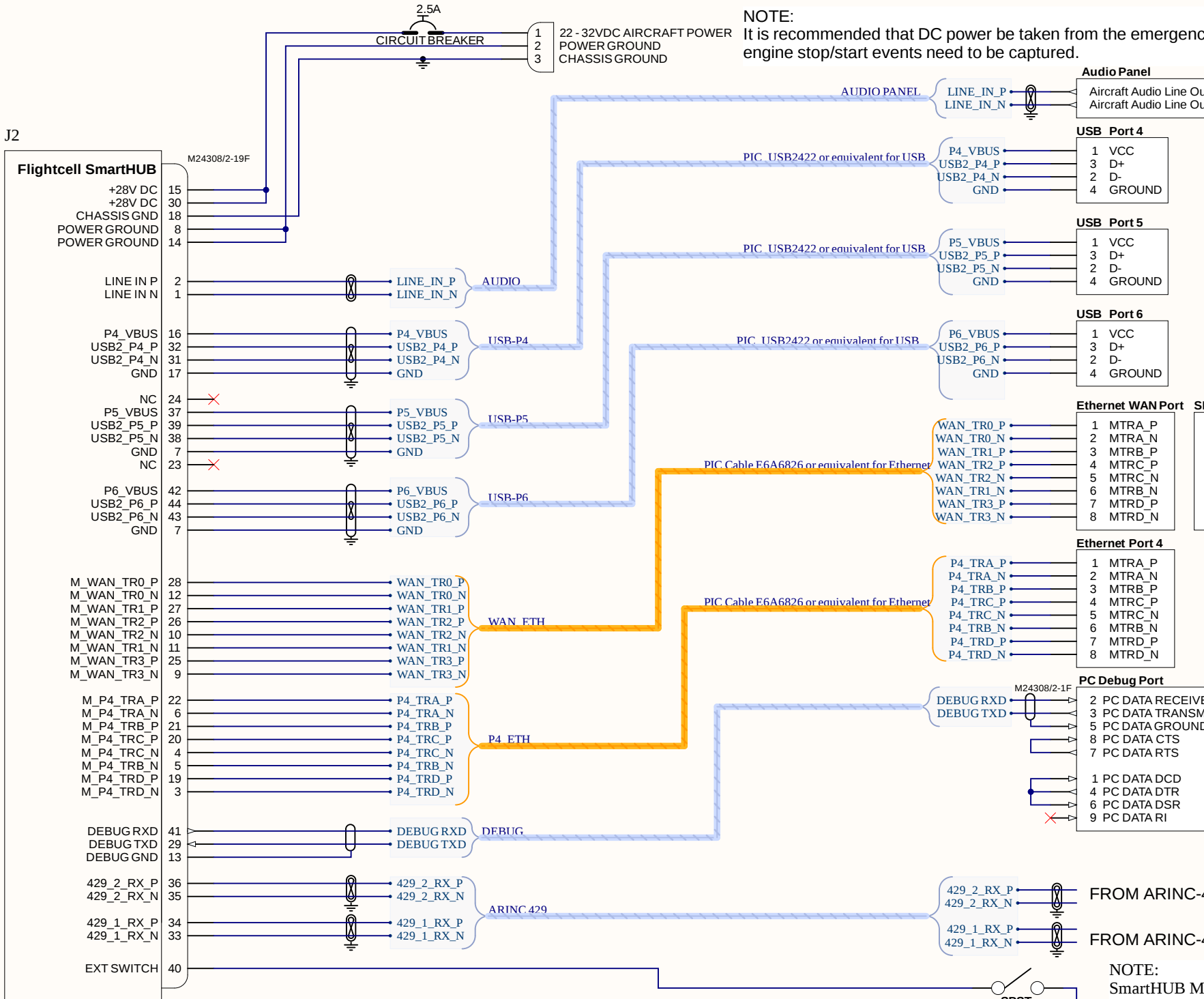
APPROVALS		DATE
DESIGN	Richard Benfield	28/05/2025
APP'D	Hannes Booyse	28/05/2025

Flightcell

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Product: SmartHUB
Sheet: SH Wiring Diagram 1 of 2
Revision: 2.4
Drawn By: Richard Benfield
Filename: 114-00012 Complete SchDoc
Date: 28/05/2025 Drawing No: 114-00012

REV	DESCRIPTION	DATE
2.4	HW-459	28/05/25
2.3	HW-435	09/05/25
2.2	HW-45	24/10/24
2.1	HW-1871	12/11/21
2.0	HW-1804	15/10/21
1.0	Initial Drawing HW-1755	06/09/21

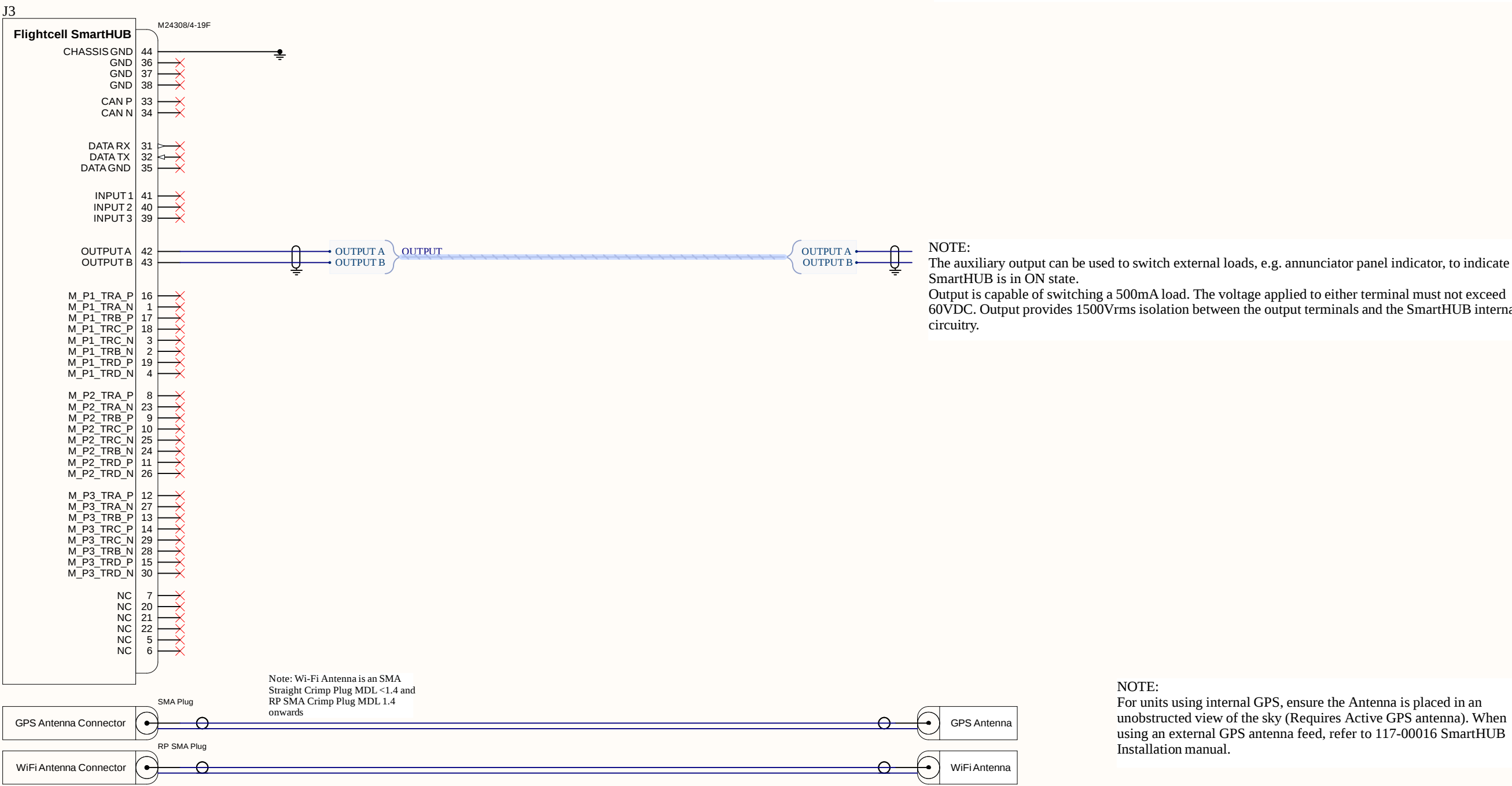
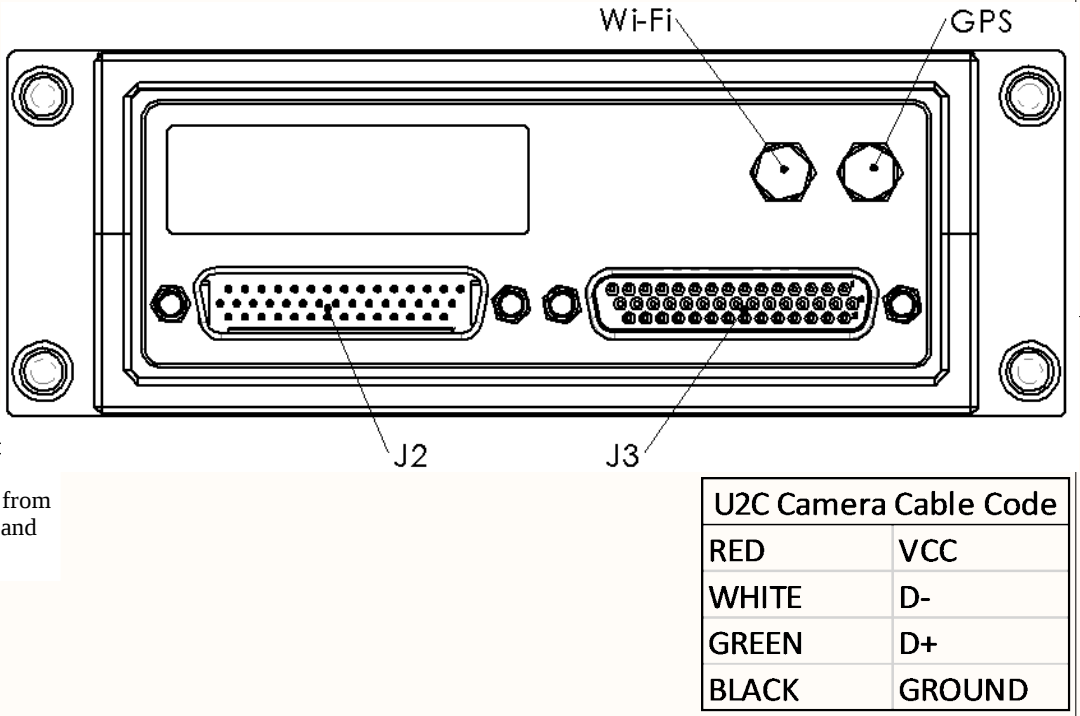
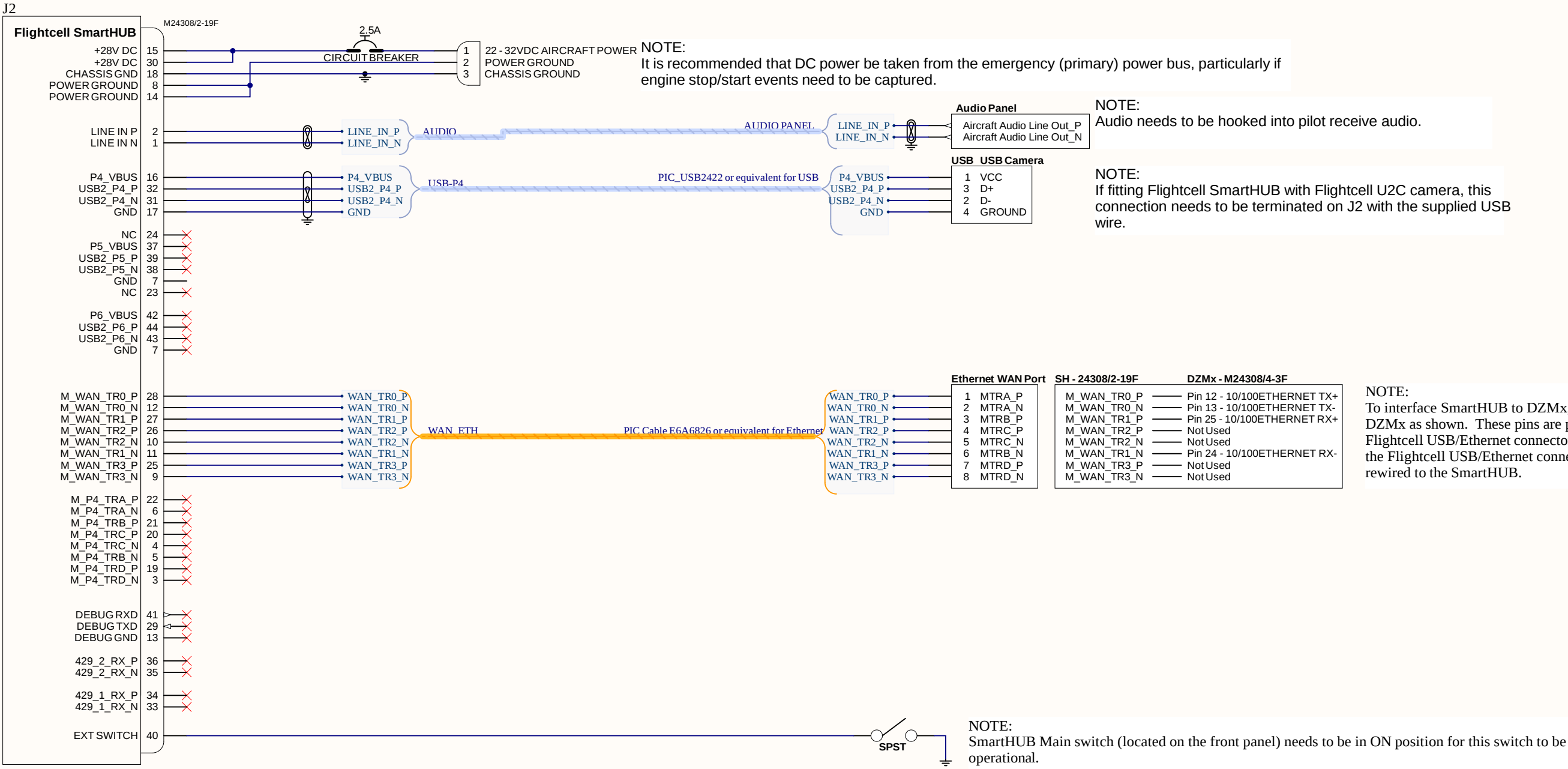


Note: Wi-Fi Antenna is an SMA Straight Crimp Plug MDL <1.4 and RP SMA Crimp Plug MDL 1.4 onwards

NOTE:
For units using internal GPS, ensure the Antenna is placed in an unobstructed view of the sky (Requires Active GPS antenna). When using an external GPS antenna feed, refer to 117-00016 SmartHUB Installation manual.

SmartHUB Simplified Interconnect Drawings

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 - All Ethernet cable should be aviation specific Ethernet eg. PIC Cable E6A6826 or equivalent aviation standard Ethernet cable



SYMBOL DESIGNATIONS:

- SHIELDED PAIR SHIELD TERMINATED TO DC GROUND
- SHIELDED PAIR SHIELD FLOATING
- TWISTED PAIR
- UNIT GROUND
- WIRE SPLICE CONNECTION
- CAXIAL CABLE

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