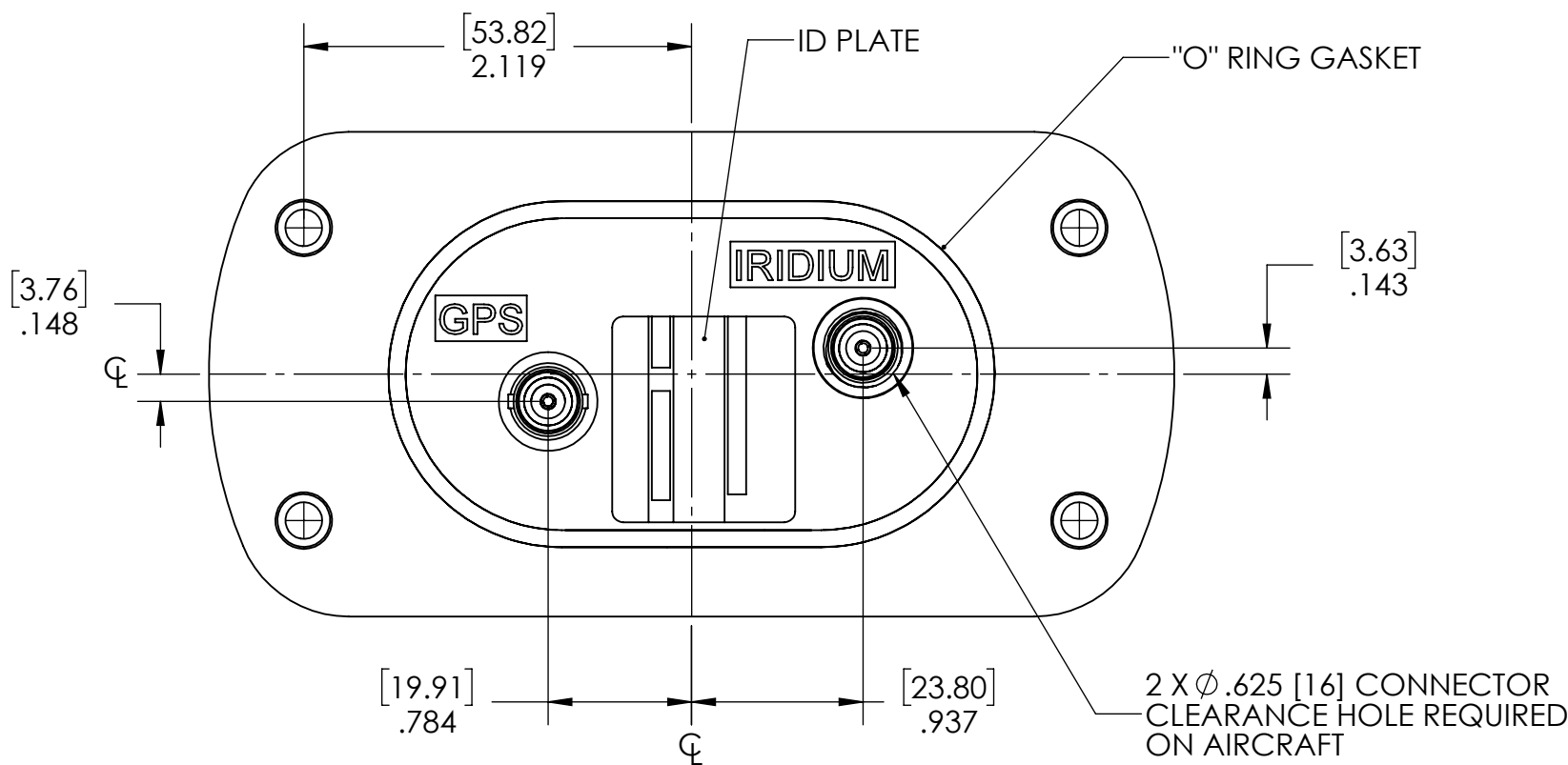
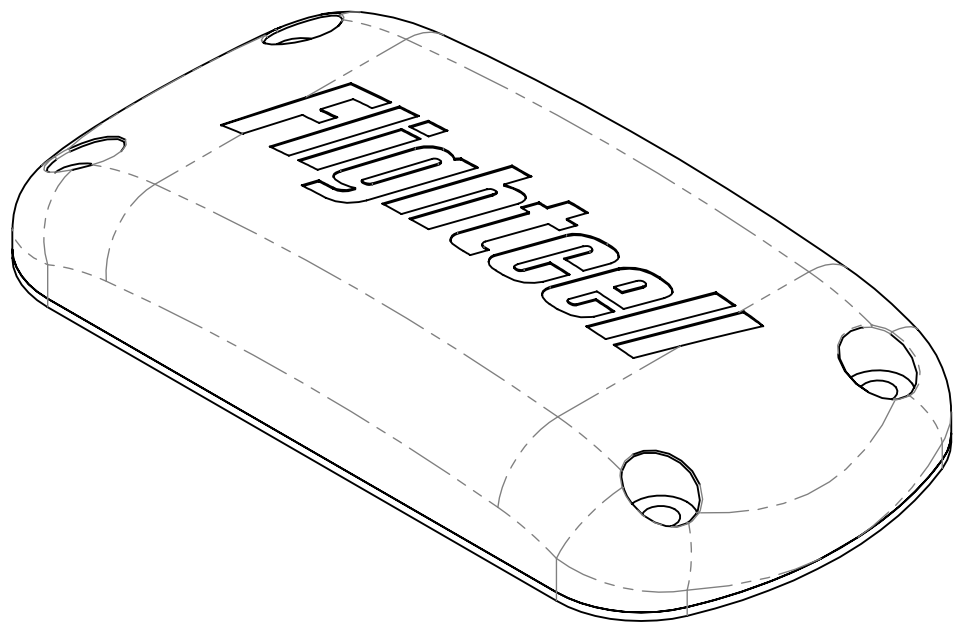
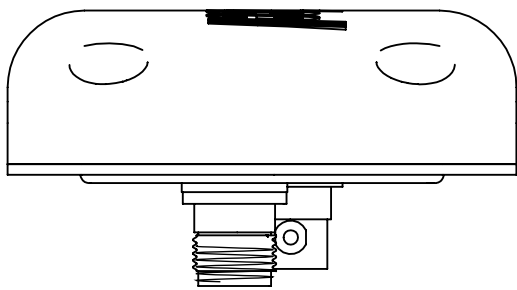
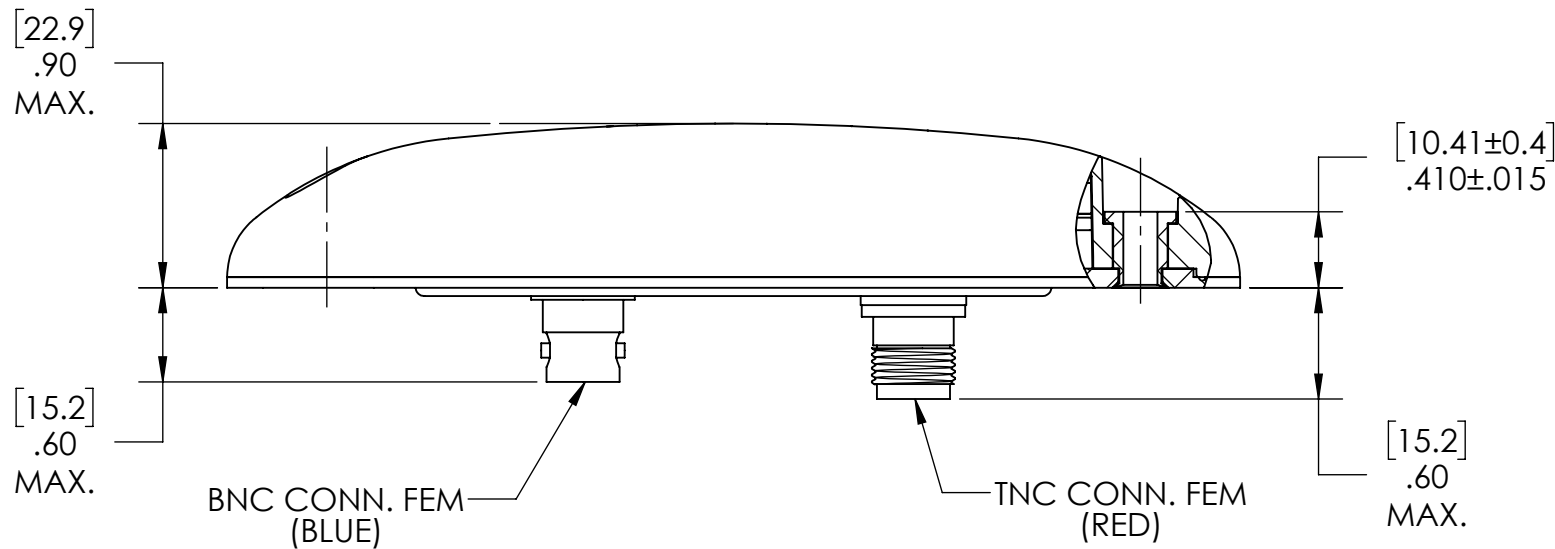
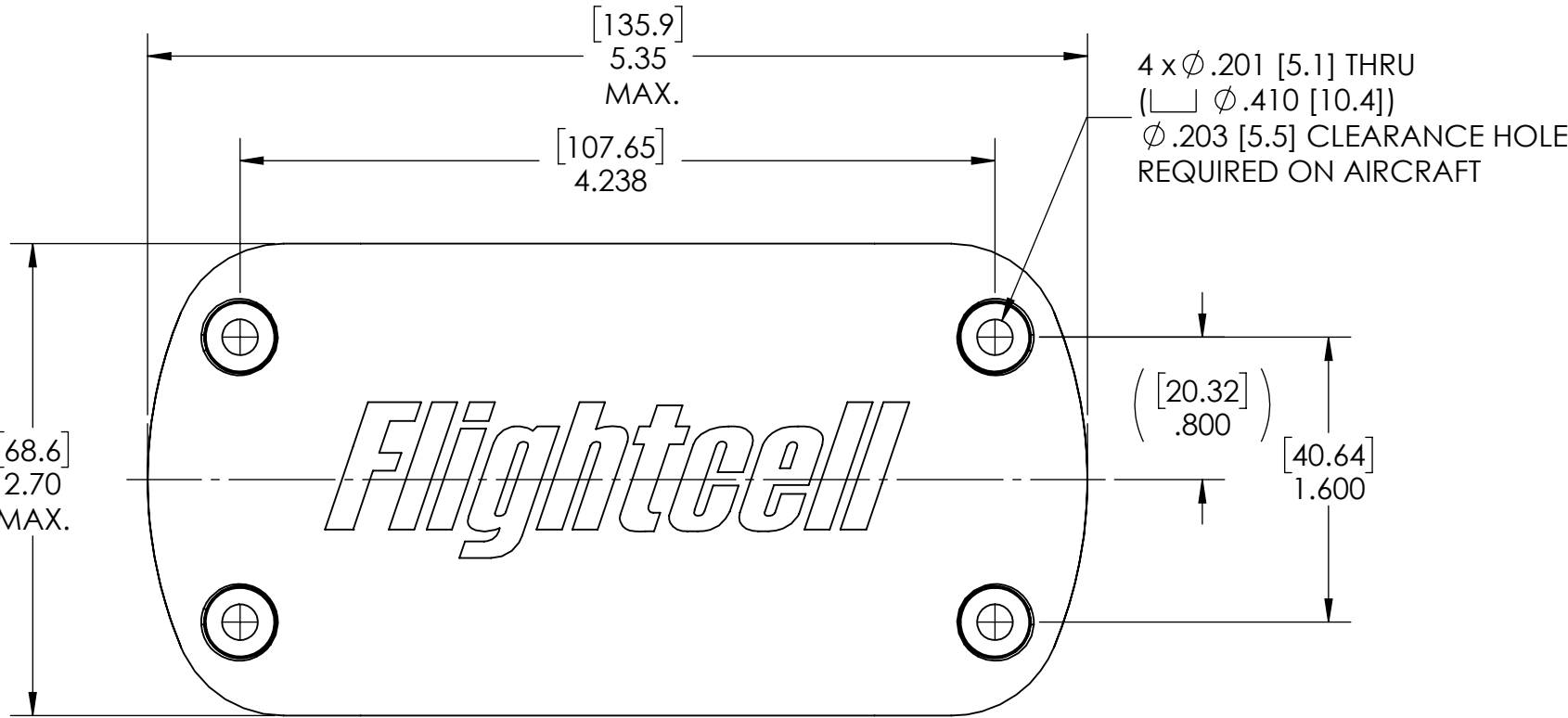


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| REVISIONS |                  |    |          |             |
|-----------|------------------|----|----------|-------------|
| LTR       | DESCRIPTION      |    | DATE     | APPROVED    |
| A         | RELEASED DRAWING | RM | 10/28/19 | DH 10/28/19 |
| B         | REF ECN 19-100   | AK | 11/08/19 | 11/08/19    |
| C         | REF ECN 20-019   | RM | 4/9/20   | DH 4/9/20   |
| D         | REF ECN 24-028   | RM | 4/25/25  | LH 04/25/25 |
| E         | REF ECN 26-005   | RM | 7/24/26  | LH 07/24/26 |



ASSY DWG. D49044

INSTALLATION DRAWING

| UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                                                                         |  | CONTRACT NO. |          | THALES   |            |              |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|----------|----------|------------|--------------|----------------|
| DIMENSIONS ARE IN INCHES<br>TOLERANCES ON DECIMALS<br>.XX ± .03 .XXX ± .010<br>FRACTIONS ± 1/32 ANGLES ± 1°<br>MACHINE FINISH 125✓ PER ANSI- B46.1<br>REMOVE BURRS AND<br>SHARP EDGES .015 MAX<br>MEET DIMENSIONS BEFORE PLATING<br>DIMENSIONS ARE PER ASME Y14.5M |  | APPROVALS    |          | DATE     |            | TITLE        |                |
|                                                                                                                                                                                                                                                                    |  |              |          |          |            |              |                |
|                                                                                                                                                                                                                                                                    |  |              |          |          |            |              |                |
|                                                                                                                                                                                                                                                                    |  |              |          |          |            |              |                |
| MATERIAL :                                                                                                                                                                                                                                                         |  | MFG          | J. JONES | 10/25/19 | DWG. NO.   | REV.         |                |
| DO NOT SCALE DRAWING                                                                                                                                                                                                                                               |  | QC           | R. PRICE | 10/28/19 | CAGE CODE  | DWG. NO.     |                |
|                                                                                                                                                                                                                                                                    |  |              |          |          | C          | 51351        | CI 490-500     |
|                                                                                                                                                                                                                                                                    |  |              |          |          |            |              | E              |
|                                                                                                                                                                                                                                                                    |  |              |          |          | SCALE: 1:1 | CAD FILE: -- | SHEET : 1 OF 2 |

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THALES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF THALES IS PROHIBITED.

- 1.0 GPS PASSIVE ANTENNA CHARACTERISTICS ( T<sub>A</sub>= -55° C TO +85° C )
- 1.1 FREQUENCY \_\_\_\_\_ 1575.42 MHz ± 10 MHz

1.2 POLARIZATION \_\_\_\_\_ RIGHT-HAND CIRCULAR

1.3 AXIAL RATIO \_\_\_\_\_ 3.0 dB ON BORESIGHT ( ZENITH ) MAX.

1.4 PASSIVE RADIATION GAIN PATTERN HEMISPHERICAL

PASSIVE RADIATION GAIN \_\_\_\_\_ +5 dBic +/- 1 dBic NOM. ( ZENITH )
- GAIN PATTERN MEASURED ON 4' CIRCULAR ROUND PLANE WITH 2.0" RADIUS EDGES.

- 2.0 GPS PREAMPLIFIER CHARACTERISTICS ( T<sub>A</sub>= -55° C TO +85° C )
- 2.1 FREQUENCY \_\_\_\_\_ 1575.42 MHz ± 10 MHz

2.2 OUTPUT IMPEDANCE \_\_\_\_\_ 50 OHMS ( NOMINAL )

2.3 OUTPUT VSWR \_\_\_\_\_ 1.5: 1 MAX.

R/L \_\_\_\_\_ 13.98 dB MIN.

2.4 GAIN AT 1575.42 ± 3MHz \_\_\_\_\_ 26.5 dB MIN – 30.1 dB MAX.

2.5 NOISE FIGURE \_\_\_\_\_ 2.5 dB MAX.

2.6 DC VOLTAGE \_\_\_\_\_ 2.8 TO 24 VDC

2.7 DC CURRENT \_\_\_\_\_ 30 TO 50 mA

2.8 LIGHTNING PROTECTION \_\_\_\_\_ DC GROUNDED

- 3.0 IRIDIUM SPECIFICATION
- 3.1 FREQUENCY \_\_\_\_\_ 1616.0 MHz TO 1626.5 MHz

3.2 POLARIZATION \_\_\_\_\_ RIGHT-HAND CIRCULAR

3.3 AXIAL RATIO \_\_\_\_\_ 2.0 dB ON BORESIGHT (ZENITH) MAX.

3.4 RADIATION GAIN PATTERN \_\_\_\_\_ HEMISPHERICAL

3.5 PASSIVE RADIATION GAIN \_\_\_\_\_ +4 dBic +/- 1 dB NOM. (ZENITH)

GAIN PATTERN MEASURED ON A CIRCULAR GROUND PLANE WITH 2.0" RADIUS EDGES.

3.6 OUTPUT IMPEDANCE \_\_\_\_\_ 50 OHMS (NOMINAL)

3.7 OUTPUT VSWR \_\_\_\_\_ 1.5: 1 MAX.

RL \_\_\_\_\_ 13.98 dB MIN.

3.8 POWER HANDLING \_\_\_\_\_ 6.5 Watts, 13 Watts PEAK WITH 37% DUTY CYCLE

3.9 LIGHTNING PROTECTION \_\_\_\_\_ DC GROUNDED

- 4.0 ANTENNA WEIGHT \_\_\_\_\_ 8.5 Oz. MAX.
- 5.0 TSO-C159d  
RTCA DO-160G, ENV. CAT.: [F2X]ACE[R(C,C1)H(R)U(F,F1)]XSFSXSXXXX[XXX][XX]X[XXXXXX][2A]AAC
- 6.0 FINISH: GLOSSY WHITE WITH  
NICKEL PLATED ALUMINUM.
- 7.0 A49061 INSTALLATION INSTRUCTIONS SUPPLIED WITH ANTENNA.
- 8.0 ANTENNA MEETS THE REQUIREMENTS OF FLIGHTCELL PART NUMBER ANP\_00043.

|                                                                                                                                                     |  |                                      |                    |                        |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------|--------------------|------------------------|----------------|
| UNLESS OTHERWISE SPECIFIED                                                                                                                          |  | THALES<br><br>IRIDIUM/GPS<br>ANTENNA |                    |                        |                |
| DIMENSIONS ARE IN INCHES<br>TOLERANCES ON DECIMALS<br>.XX ± .03 .XXX ± .010<br>FRACTIONS ± 1/32 ANGLES ± 1°                                         |  |                                      |                    |                        |                |
| MACHINE FINISH 125✓/PER ANSI- B46.1<br>REMOVE BURRS AND<br>SHARP EDGES .015 MAX<br>MEET DIMENSIONS BEFORE PLATING<br>DIMENSIONS ARE PER ASME Y14.5M |  |                                      |                    |                        |                |
| MATERIAL :                                                                                                                                          |  | DWG<br>SIZE<br>C                     | CAGE CODE<br>51351 | DWG. NO.<br>CI 490-500 | REV.<br>E      |
| DO NOT SCALE DRAWING                                                                                                                                |  | SCALE: --                            |                    | CAD FILE: --           | SHEET : 2 OF 2 |