



L3HARRIS™
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CSS-905A S-BAND TELEMETRY TRANSMITTER

Ideally suited for missiles, aircraft, UAVs and munitions

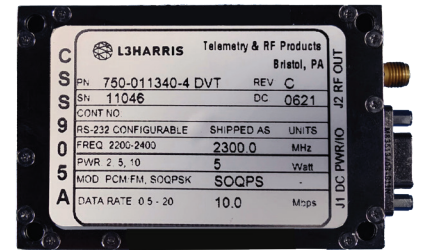
FEATURES SUMMARY

KEY FEATURES

| |
|---|
| Multimode ARTM Tier 0, I and II modulation (PCM/FM, SOQPSK-TG and Multi-h CPM) |
| Input data rates configurable from 500 kbps to 27 Mbps |
| Frequency selection from 2200 MHz to 2400 MHz in 0.5 MHz steps |
| RF output configuration settings of 2, 5, 7 and 10 W |
| RF enable/disable control pin |
| IRIG-106-Appendix-N-compliant RS-232 serial control and status interface |
| +21 VDC to +36 VDC power input range and reverse power protection to -40 VDC |
| -40 C to +85 C qualified operating temperature range |
| 100 Gs shock and acceleration, 28 Grms vibration |
| IRIG and MIL-STD-461 EMI compliant, with RF output filtering to protect co-located GPS and FTR subsystems |
| High-efficiency power design and power amplifier |
| User configurable or factory set |
| RF output protection from VSWR loads, including open and short conditions |
| Mission heritage |

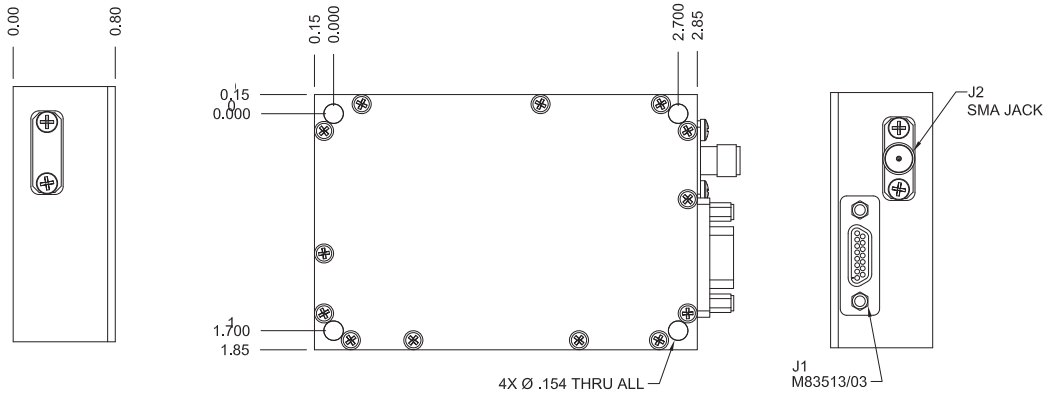
INTERFACE CONNECTOR FEATURES

| |
|---|
| RS-232 serial interface that is IRIG-106 compliant for status and control |
| RS-422 input for clock and date |
| DC power input and ground (GND) return |
| RF output enable pin |



The L3Harris CSS-905A is a multimode S-band telemetry transmitter. Its compact, power-efficient, low-weight, 4.2-cubic-inch design is ideal for missiles, aircraft, unmanned aerial vehicles (UAVs) and munitions. This proven transmitter design, which provides high-shock, vibration and acceleration performance, is ready to support the most challenging requirements.

CSS-905A can be factory set or user configured over a range of operating parameters, including radio frequency (RF) output power, frequency selection, input data rates, and Advanced Range Telemetry (ARTM) Tier 0, I and II modulation. Its flight history reduces selection and system design risks and provides opportunities for qualification-by-similarity (QBS) analysis. CSS-905A is a proven, high-reliability telemetry transmitter that has supported a full range of qualification testing by the most demanding programs.



SPECIFICATIONS

| FUNCTIONAL | |
|------------------------------------|---|
| Frequency range | 2200 to 2400 MHz, 0.5 MHz steps |
| Output power | 2 W, 5 W, 7 W or 10 W (optional switchable power levels) |
| Modulation | ARTM 0, I and II (PCM/FM, SOQPSK, Multi-h CPM) |
| Carrier stability | +/- 0.002% |
| Output load VSWR | 50 ohms (nominal), no damage open or short |
| Coupling | DC |
| RS-422 input | 100 ohms differential impedance |
| POWER | |
| Input VDC range | +28 (typ), +21 to +36 |
| Current (typ.) | < 750 mA at 28 V, 5W RF (across temp.); 1.3A at 28V, 10W RF (ambient) |
| Reverse polarity protection | No damage -40 VDC applied, indefinite period |
| Grounding | Power and RF output, common to chassis |
| ENVIRONMENTAL | |
| Operating temperature | -40 C to +85 C maximum |
| Storage temperature | -54 C to +95 C |
| Random vibration | 28 G rms maximum |
| Shock | 100 G peak ½ sine, 0.5 mSec maximum |
| Acceleration | 100 G maximum |
| Humidity | MIL-STD-810 Method 507 |
| Electromagnetic Interference (EMI) | IRIG and MIL-STD-461 |
| MECHANICAL | |
| Size | 3.0" L x 2.0" W x 0.8" H (7.62 cm L x 5.08 cm W x 2.0 cm H) |
| Volume | 4.8 cubic inch (12.19 cubic cm) |
| Weight | 5.8 ounces (164.4 g) |



UNIT PIN FUNCTION

| PIN | Signal name |
|-----|------------------------|
| 1 | +VDC input |
| 2 | DC RTN |
| 3 | N/C |
| 4 | RS422, clock input (-) |
| 5 | RS422, data input (-) |
| 6 | N/C |
| 7 | RS232, serial control |
| 8 | RS232, serial status |
| 9 | +VDC input |
| 10 | DC RTN |
| 11 | N/C |
| 12 | RF enable/disable |
| 13 | RS422, data input (+) |

CSS-905A S-band Telemetry Transmitter

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Nonexport-controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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