



TUALAJ 8300

CRPA GNSS Anti-Jam System

GENERAL DESCRIPTION

TUALCOM CRPA Anti-Jam GNSS Systems support critical missions by providing jam free GNSS signals and resilient PNT.

With its 8-element CRPA antenna, state-of-art digital controller and novel beamforming techniques TUALAJ 8300 eliminates interference to ensure uninterrupted operation of GNSS receivers in the presence of jamming sources from up to 7 different directions in 3 different frequency bands. The set of protected active bands is pre-selectable amongst available options.

TUALAJ 8300 supports various messaging formats and integrates seamlessly with civil and military GNSS receivers deployed on land, sea, air manned/unmanned platforms and fixed installations. TUALAJ 8300 also offers embedded high performance GNSS receiver as an option and allows SBAS signals to be utilized for increased accuracy and reliability.

Two different CRPA antennas are offered to be paired with TUALAJ 8300 for different weight and size requirements. In addition to CRPA, protection performance is further improved using adaptive notch filtering and pulse blanking.

BENEFITS

- Protection against jammers from 7 different directions
- Easy to install
- Plug and play integration into new or legacy platforms
- Immediate availability for urgent operational needs
- Compatible with all types of external GPS receivers and vehicle navigation systems, including M Code
- Light weight and compact Size
- Superior suppression performance
- Embedded GNSS receiver option
- Compatibility with military standards
- Resilient PNT

APPLICATION AREAS

- Fixed/Rotary Wing Aircraft
- GNSS Guided Munitions
- Unmanned Autonomous Systems
- Armored Land Vehicles
- Naval and Coast Guard Platforms
- Maritime EW Protection
- Critical Infrastructure EW Protection
- Advanced Transportation Systems
- Military Communications

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Dimensions (cm)

13.9 x 7 x 2.1 (DACU)
14 x 14 x 2.2 (Antenna Option 1)
20Ø x 3.05 (Antenna Option 2)



Weight (g)

410 (DACU)
750 (Antenna Option 1)
875 (Antenna Option 2)



Power Consumption

Maximum 24 W



Antenna Array

8 Array CRPA Antenna



Simultaneous Independent Nulling

7



Simultaneously Protected Active Bands

Option 1

GPS (L1, L2), GLONASS (G1, G2), GALILEO E1, BEIDOU B1, SBAS

Option 2

GPS (L1, L2, L5), GALILEO (E1, E5a, E5b), BEIDOU B1, SBAS



Nominal Wideband Suppression

>50 dB



Connectors

9x MCX Female
Micro-D 25-pin Socket



Operating Voltage

12-28 Vdc



Operating Temperature

-40 °C to +85 °C



Embedded GNSS Receiver (Optional)

GPS (L1, L2), GLONASS (G1, G2), Galileo (E1, E5b), BeiDou (B11), SBAS, QZSS (L1), RTCM Support



Environmental Tests

MIL-STD-810G



EMI / EMC

MIL-STD-461F



Data Interfaces


Serial RS-485
Serial RS-232
Ethernet (Optional)

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