



TUALAJ 4200 - MINI

CRPA GNSS Anti-Jam System

GENERAL DESCRIPTION

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

With its 4-element CRPA antenna, state-of-the-art digital controller and novel beamforming techniques TUALAJ 4200 MINI eliminates interference to ensure uninterrupted operation of GNSS receivers in the presence of jamming sources from up to 3 different directions in 2 different frequency bands. The set of protected active bands is pre-selectable amongst available options.

TUALAJ 4200 MINI 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 4200 MINI also offers an embedded high performance GNSS receiver as an option and allows SBAS signals to be utilized for increased accuracy and reliability.

In addition to CRPA, protection performance is further improved using adaptive notch filtering and pulse blanking.

BENEFITS

- Protection against jammers from 3 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 Winged 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)

- 7.9 x 5.65 x 1.9 (DACU)
- 10.5 x 10.5 x 2.3 (Antenna Option 1)
- 7 x 7 x 1.1 (Antenna Option 2)

Weight (g)

- 190 (DACU)
- 430 (Antenna Option 1)
- 100 (Antenna Option 2)

Power Consumption

Maximum 12 W



Antenna Array

4 Array CRPA Antenna



Simultaneous Independent Nulling

3



Simultaneously Protected Active Bands Option 1

GPS L1/L2, Galileo E1, BeiDou B1, SBAS

Option 2

GPS L1/L5, Galileo E1/E5a, BeiDou, SBAS

Option 3

GPS L1, GLONASS G1, Galileo E1, BeiDou B1
SBAS



Connectors

5x 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, GLONASS L1, Galileo E1, BeiDou B1
SBAS, QZSS L1, RTCM Support



Environmental Tests

MIL-STD-810G



EMI / EMC

MIL-STD-461F



Data Interfaces

Ethernet
Serial RS-232
Serial RS-485

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