

4-Channel Anti-Jam GPS DACU

Key features:

- **M-code compliant**
- **Excision narrowband interference protection**
- **Compact and lightweight**
- **Low latency**



Chelton's 4-Channel Anti-Jam GPS system provides significant immunity to jamming compared with a conventional GPS antenna, allowing the platform to operate up to 100 times closer to the jammer and maintain reception.

The Digital Antenna Control Unit (DACU) mitigates narrow-band interference, using an excision process, and broadband interference by creating directed nulls in the antenna pattern. These techniques provide significant anti-jam protection even in highly dynamic, multi-jammer environments.

Chelton is able to provide a complete anti-jam solution for the platform. Installations can make use of a variety of CRPA options and cabling lengths, to best suit the form factor requirements of the platform. The DACU interfaces the antenna array to the GPS receiver.

The DACU is designed for size and weight constrained platforms, such as small airborne and unmanned installations. The DACU includes the ability to determine the direction of multiple spatially separated

jammers with an accuracy of better than 5 degrees when the system is calibrated to the aircraft platform.

ELECTRICAL

Impedance	50 Ω
VSWR	>2:1
Gain	The DACU is designed to operate in conjunction with a Chelton CRPA type 20-7009. The system shall provide an overall RF gain from antenna element to target GPS receiver of greater than 29.5 dB (as per DO-301 requirements) when installed with cable giving a maximum of 4.5 dB loss between the CRPA and DACU.
Nulling Capability	STAP and Excision
CRPA	20-7009
Channels	4

MECHANICAL

Dimensions (LxWxH)	231 x 125 x 60 mm (excluding connectors)
Weight	1.6kg max
Connector	Input 4 x SMA Female, Output TNC Female

ENVIRONMENTAL

Continuous Operating Temperature	- 40°C Min + 71°C Max
Altitude	50,000 ft

