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QR201



GNSS L1/L2/G1/G2/G3/E1/E5b/B1/B2 ANTENNA

Provides a robust RF link to GNSS in a presence of an
unintentional or intentional RF interference

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QR201 anti-jamming antenna allows to mitigate an unintentional RF interference or jamming signal using a spatial domain of an antenna array reception pattern. The antenna provides protection not only for GNSS bands but also for upper section of L-band (1539-1560) MHz often used for satellite differential corrections.

The unit default configuration (no jamming signal present) has a 120 deg phase gradient between antenna elements to maximize the reception of GPS right-hand circularly polarized (RHCP) signals.

The GNSS receivers have inherent anti-jamming capability to mitigate minor interference levels of up to 30 dB J/S due to de-spreading technique of extracting GNSS signals from the noise. The QR201 allows to extend this capability to medium and string interference signal levels by adapting a deep null in the antenna array reception pattern towards the source of interference. This approach prevents the RF front end from saturation when exposed to a high-power source or being in close proximity to a medium power source location. The anti-jamming algorithm is an adaptive type that simultaneously performs nulling in all GNSS frequencies and L-band without a need of knowing the unit's orientation or position.

Ideal for small platforms with limited DC power source

Immunity to interference and jamming

Designed for harsh environments

QR201 Product Specification

Ordering Options: QR201 (40 dB LNA gain – default config.)

Finish Colors: RAL 9003 (white – default), inquiry about other colors

Electrical		Mechanical & Environmental	
Bandwidth	60 MHz	Mounting	4x M4 Machine screws 3/8"-24 adapter
Bands	L1/L2/E1/E5b/ G1/G2/G3/B1/B2/ L-band (1539-1560)	Diameter/Height	144 mm / 58 mm
In-Band Rejection (adaptive null depth)	- 30 dB typical	Weight	500 grams
Out-of-Band Rejection	- 120 dB	Operating Temp	-40° to +85° C
Number of antennas	3 (internal)	Storage Temp	-55° to +90° C
Noise Figure	1 dB typical	Vibration	Inquire
LNA Gain	40 dB	Shock	Inquire
Supply Current	250 mA	Waterproof Level	IP67
Power Supply	4-12 VDC	Lightning	IEC61000-4-5 Level 4
Compliance	CE, FCC, WEE, RoHS	Connector type	SMA-jack (default)
		DC power Input	Center Conductor (SMA -jack connector)