CR-G5

TOPCON

Choke Ring Antenna

- Competitive high-end Geodetic Antenna
- Topcon's TA-5 vertical convex dipole antenna element for full spectrum GNSS signal tracking
- Topcon designed choke ring groundplane
- Environmentally robust and sealed
- Improved phase center stability in vertical over expanded GNSS frequency band. Improved low elevated satellites tracking.

CR-G5 Choke Ring Antenna

Next Generation Full Wave Geodatic Antenna Anti-Snow Spherical Dome

The CR-G5 is a newly designed choke ring antenna based on Topcon's new TA-5 full spectrum GNSS antenna element. The TA-5 antenna element utilizes an array of vertical convex dipoles. This new antenna provides Full Wave tracking technology for existing and future GNSS signals. The antenna addresses the evolving requirements for reference networks and infrastructure monitoring applications.

SPECIFICATIONS

Dimensions	
Antenna without Anti-snow Dome	380 mm (D) x 155.5 mm (H)
With Topcon Anti-snow Spherical Dome	380 mm (D) x 292 mm (H)
With SCIGN Anti-snow Short Dome	415 mm (D) x 287 mm (H)
Weight	
Antenna	4.9 kg
Topcon Anti-snow Spherical Dome	1.1 kg
Antenna w/ Topcon Anti-snow Spherical Dome	6 kg
Power	
Input Voltage	+3 to +12 VDC
Current Consumption	100 mA (typical)
Connector	N-type
Environmental	
MIL-STD-810G	
Temperature	(Methods 501.5, 502.5)
Operating Range	-50°C to +70°C
Storage Range	-55°C to +85°C
Humidity	100% Moisture
Salt Fog, 5%	Method 509.4
Vibration	Method 514.6, Broad band noise (random vibration), along each of 3 axes, Category 4, table 514.6C-IV
Mechanical Shock	Method 516.6, along each of 3 axes. Procedure I - Functional Shock, Table 516.6-I, Fig. 516.6-8, accelerative forces up to 40g
IP Rating	IEC 60529 IP67
Drop Test	Repeated drops from the height of 1 m on concrete surface. All sides – top, bottom & border (with Dome)
RoHS Compliant	Yes
Performance	
Operating Frequency Range	
Lower band	1230 MHz±70 MHz (L5, E5B, E3, L2, G2, E4, E6)
Upper band	1565 MHz±50 MHz (E2, L1, E1, G1, OmniStar, SBAS, CDGPS)
Out-of-Band Rejection	
Upper band (1568.5 MHz ±150 MHz)	-40 dBc (typical)
Lower band (1232 MHz ± 100 MHz)	-60 dBc (typical)
Other bands	
f < 1000 MHz	-60 dBc (typical)
f > 1750 MHz	-60 dBc (typical)
LNA Gain	43 dB (typical)
Gain at Zenith (90°)	Lower band: +7.5 dB (typical) Upper band: +5 dB (typical)
Gain Roll-Off (from Zenith to Horizon)	Lower band: -16.5 dB (typical) Upper band: -13 dB (typical)
Noise Figure	1.0 dB (typical)
VSWR	1.5 : 1
Differential Propagation Delay (typical)	Lower band: 3 ns (maximum) Upper band: 3 ns (maximum)
Nominal Impedance	50 Ohm

Topcon TotalCare

This online resource comes with real live people ready to help. Get expert training from Topcon University's large collection of online materials, and expert help directly from Topcon Technical Support.

Access software and firmware updates, current publications, and guidance from the experts at Topcon all right from your computer or mobile device.

Please visit the TotalCare website to learn more.
topcontotalcare.com

TOPCON
topconpositioning.com
7400 National Drive • Livermore • CA 94550
(925) 245-8300

Your local Authorized Topcon dealer is: