



CR-4 Choke Ring Antenna

The Topcon CR-4 dual-constellation antenna offers both GPS and GLONASS L1 and L2 bands reception. This classic design, high quality, standard Dorne & Margolin antenna element delivers high-precision measurements in even the most severe weather conditions. Highly recommended for use in GNSS reference networks, infrastructure monitoring, high precision geodetic surveying or machine control applications.

Performance
Operating Frequency Range L1 GPS/GLONASS 1586.5 ± 25 MHz L2 GPS/GLONASS 1236 ± 20 MHz
Out-of-Band Rejection L1 ± 100 MHz -15 dBc (typical) L2 ± 100 MHz -25 dBc (typical)
LNA Gain: 30 dB (typical)
Gain at Zenith (90°) GPS L1 7.5 dBic (minimum) GPS L2 7.5 dBic (minimum) GLONASS L1 7 dBic (minimum) GLONASS L2 7.5 dBic (minimum)
Gain Roll-Off (from Zenith to Horizon) GPS L1 -16 dB GPS L2 -17 dB GLONASS L1 -16 dB GLONASS L2 -17 dB
Noise Figure: 1.8 dB (typical)
VSWR ≤ 2.0 : 1
Differential Propagation Delay L1 1 ns (maximum) L2 1.5 ns (maximum)
Nominal Impedance: 50 Ohm

Physical and Electrical
Size Diameter 380 mm
Height 138.5 mm (Antenna without Anti-snow Dome) 292 mm (Antenna with Topcon Anti-snow Dome)
Weight 4.3 kg (Antenna without Topcon Anti-snow Dome) 1.1 kg (Topcon Anti-snow Spherical Dome) 5.4 kg (Antenna with Topcon Anti-snow Dome)
Power Input Voltage: +3 to +18 VDC Current Consumption: 45 mA@3.0V (typical)
Mount: 5/8"-11 thread
Connector: N female
Environmental Temperature Operating Range: -40°C to +55°C Storage Range: -40°C to +70°C Waterproof: IEC 60529 IPX5 Dustproof: IEC 60529 IP6X Drop Test: Drop from 1-meter height on asphaltic-concrete surface, bottom and border sides. RoHS Compliant: Yes

The antenna calibration is published on the NGS website at: <http://www.ngs.noaa.gov/ANTCAL/>.

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