



The CR-G5 is a choke ring antenna based on Topcon's TA-5 full spectrum GNSS antenna element. The TA-5 antenna element utilizes an array of vertical convex dipoles. This 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.

- 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 sealed
- Improved phase center stability in vertical over expanded GNSS frequency band. Improved low elevated satellites tracking

| 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 | |
| Lower band (1232 MHz ± 100 MHz) | -60 dBc (typical) |
| Upper band (1568.5 MHz ± 150 MHz) | -40 dBc (typical) |
| f < 1000 MHz | -60 dBc (typical) |
| f > 1750 MHz | -60 dBc (typical) |
| Gain, Noise Figure and VSWR | |
| 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 |
| Environmental | |
| Enclosure | MIL-STD-810G |
| Temperature (Methods 501.4, 02.4) | Operating: -50°C to 70°C Storage: -55°C to 85°C |
| Water / Dust Rating | IP67 IEC 60529 |
| Vibration | Method 514.6, Broad band noise (random vibration), along each of 3 axes, Category 4, table 514.6C-IV |
| Humidity | 95% (Method 507.5) |
| 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 |
| Salt Fog | 5% (Method 509.4) |
| Drop Test | Repeated drops from the height of 1 m on concrete surface. All sides – top, bottom and border (with dome) |
| RoHS Compliant | Yes |
| Power | |
| Input Voltage | 3 to 12 VDC |
| Power Consumption | 100 mA (typical) |
| Physical | |
| Dimensions (d x h) | 380 x 155.5 mm (antenna without anti-snow dome) 380 x 292 mm (with Topcon anti-snow spherical dome) 415 x 287 mm (with SCIGN anti-snow short dome) |
| Weight | 4.9 kg (antenna) 1.1 kg (Topcon anti-snow spherical dome) 6 kg (antenna with Topcon anti-snow spherical dome) |
| Connector | N-type |



For more information:
topconpositioning.com/cr-g5

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