



The CR-G5-C is a choke ring antenna with cavity filter 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
- Cavity filter mitigates near band jamming
- Topcon designed choke ring groundplane
- Improved phase center stability in vertical over expanded GNSS frequency band. Improved low elevated satellites tracking

Operating Frequency Range	
Lower band	1160...1300 MHz (E5a, L5, E5b, G3, B2, E3, L2, G2, E4, B3, E6)
Upper band	1540...1610 MHz (E2, B1, L1, B1-2, E1, G1, SBAS)
Out of Band Rejection (typical)	
Lower band (1090...1370 MHz)	-60 dBc
Upper band (1510...1670 MHz)	-60 dBc
f < 1050 MHz	-80 dBc
f > 1700 MHz	-80 dBc
Gain, Noise Figure and VSWR	
LNA Gain	43 dB (typical)
Gain at Zenith (minimum)	Lower band: 7.5 dB (typical) Upper band: 5 dB (typical)
Gain Roll-Off (typical)	Lower band: 16.5 dB Upper band: 13 dB
Noise Figure	1.0 dB (typical)
VSWR	≤ 1.5 : 1
Differential Propagation Delay	4 ns (typical)
Nominal Impedance	50 Ohm
Environmental	
Temperature (Method 501.5 High Temp., Proc. 1, Method 502.5, Low Temp Proc. 1)	Operating: -50°C to 85°C Storage: -55°C to 85°C
Water / Dust Rating	IP67 IEC 60529
Vibration	Method 514.6, Category 4, Table 514.6C-IV
Humidity	95% (Method 507.5, Humidity, Procedure 2)
Mechanical Shock	Method 516.6, Procedure 1 Functional Shock Table 516.6-1, Figure 516.6-8
Drop	Repeated drops from the height of 1 meter on concrete surface with Topcon anti-snow spherical dome or SCIGN short dome
RoHS Compliant	Yes
Power	
Input Voltage	3.3 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 short dome)
Weight	5.3 kg (antenna) 1.1 kg (Topcon anti-snow spherical dome) 6.4 kg (antenna with Topcon anti-snow spherical dome) 1.8 kg (SCIGN short dome) 7.1 kg (antenna with SCIGN short dome)
Connector	N-type female
Mount	5/8-11 UNC-2B thread

