

AR20 – Smart Antennas



Description

The AR20 is a new innovative design antenna that brings new levels of performance for reference station and monitoring applications. The AR20 contains a new 3D design choke ring for improved tracking performance, excellent phase center symmetry and unmatched multipath suppression across all GNSS frequency bands.

Features

- **New innovative design choke ring antenna:** The AR20 provides superior tracking performance by using different depth and width choke rings. The precision design also allows for very low and stable phase center offsets and very smooth symmetry of the phase center variations versus azimuth and elevation.
- **Superior multipath performance:** With an excellent axial ratio at low elevations, the AR20 provides results with superior multipath rejection across all GNSS frequency bands including L5, thanks to the new 3D inside design. Traditional 2D choke ring designs are only optimized for a specific frequency band.
- **Robust for long durability:** The newly designed AR20 choke rings are treated with a new and robust double treatment for longer lasting durability in all environments. An optional radome cover is also available for added protection.

Specifications



Technical Specification	
Design	Planar structure with 3D choke ring ground plane
Signals tracked	GPS: L1, L2 (including L2C), L5 GLONASS: L1, L2, L3, L5 Galileo: E1, E5a, E5b, E5ab (AltBOC), E6 Compass: B1, B2, B3 QZSS: L1, L1C, L2C, L5, L1-SAIF, LEX L-Band (incl. SBAS, TERRASTAR and CDGPS)
Phase centre	Accuracy: Typically less than 1 mm Repeatability: Within 1 mm
Dimensions (H x W)	163 mm x 320 mm
Weight	5.9 kg
Supply voltage range	3.3 – 12 VDC
Connector	N-Type (female)
Mounting	Standard 5/8" whitworth thread
Nominal impedance	50 ohms
Current	100 mA maximum
Noise figure	Less than 2.0 dB
Axial ratio	Less than 1.2 at zenith
Temperature range	ISO9022 and MIL-STD-810G Operating: -55° C to +85° C Storage: -55° C to +85° C
Environmental protection	Humidity: up to 100% Rain, dust, sand, wind: IP67 – Protection against blowing rain and dust. Waterproof to temporary submersion into water (1 m depth)
RoHS complaint	Yes
Vibration	ISO9022-36-05, 10 to 55 Hz; ± 0.15 mm, 5 cycles
Drop	Withstands 1.0 m drop onto hard surfaces
Antenna cables	Are available in lengths of 1.2/2.8/10/30/50/70 metres. Longer cables available on request
Radome	Available as option