

SA1000 GNSS Antenna

GNSS Antenna
for Reference Station



SA1000 TECHNICAL FEATURES

MINI CHOKE RING ANTENNA

Stonex SA1000 is a high performance mini Choke Ring GNSS antenna with strong multipath suppression and submillimeter phase center stability. This antenna is ideal for use in installations for monitoring or CORS for the creation of a Network VRS.

The advantage of this antenna is to have excellent performance in small dimensions, it has a diameter of only 213mm and a low weight of 3Kg. This allows easy installation compared to the standard Choke Ring antenna which have larger dimensions and weight.

TRACKING OF ALL GNSS SIGNALS

SA1000 is able to track all signals (L1, L2, L3/L5) of all available constellations: GPS, Glonass, Galileo, BeiDou, QZSS, IRNSS, SBAS and the L-band correction service.

The strong ability to receive low elevation signals with high gain and wide beam width makes SA1000 an excellent choice for tracking visible satellites and provide stable and precision GNSS data under complex environments, such as obstructed environment of tree lines or construction.

STRONG AND RUGGED

The SA1000 radome is made of Glass Fiber Reinforced Polymer(GFRP) material and is structurally strong and reliable. The IP67 ruggedized cover is also designed to protect the inside antenna from dust and water. SA1000 is the perfect compromise of a compact antenna, performing but with a very competitive price.

PERFORMANCE

Satellite Signal Tracked	GPS: L1, L2, L5
	GLONASS: L1, L2, L3
	BEIDOU: B1, B2, B3
	GALILEO: E1, E2, E5a, E5b, E6
	QZSS: L1, L2, L5, L6
	IRNSS: L5
	SBAS: L1, L5
L-BAND	
Type	Mini Choke Ring Antenna
Phase Center Stability	± 1mm
Nominal Impedance	50Ω
Polarization	RHCP
Axial Ratio	≤2dB
Peak Gain	5.5dB
LNA Gain	40dB (typical)
Noise Figure	≤1.5dB
Output/Input VSWR	≤2.0
Operation Voltage	+3.3VDC to +12VDC
Operation Current	50mA (maximum)
Group Delay Ripple	≤5ns

MECHANICAL

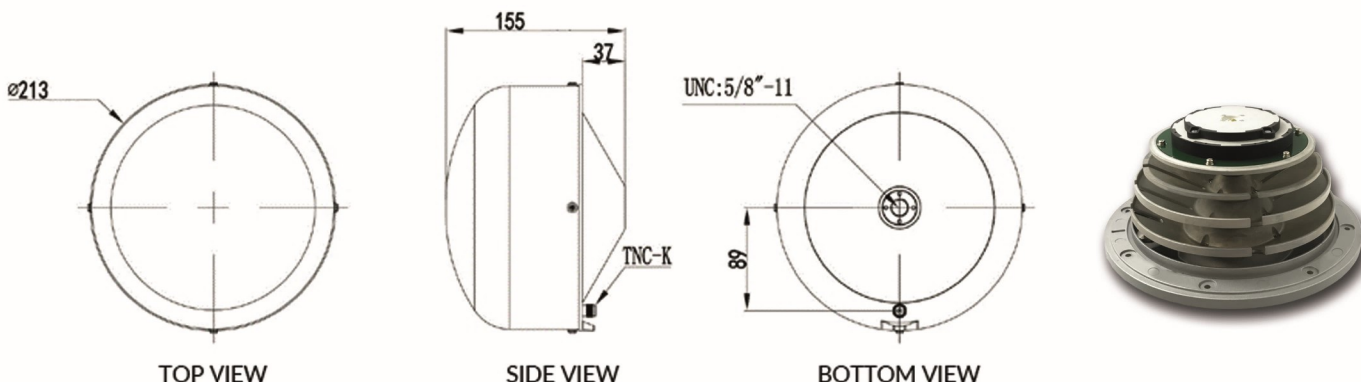
Dimensions	Ø213mm x 155mm
Connector	TNC female
Mounting	BSW 5/8"-11 screw, depth ≥22mm
Weight	3.0kg

ENVIRONMENTAL

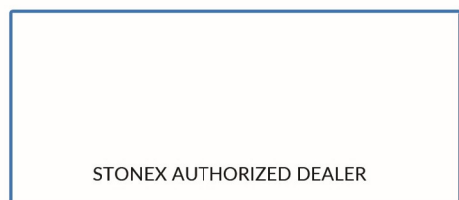
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-55°C to 85°C (-67°F to 185°F)
Humidity	95% non condensing
Waterproof/Dustproof	IP67

CALIBRATION

NGS	Yes
IGS	Yes



Illustrations, descriptions and technical specifications are not binding and may change



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