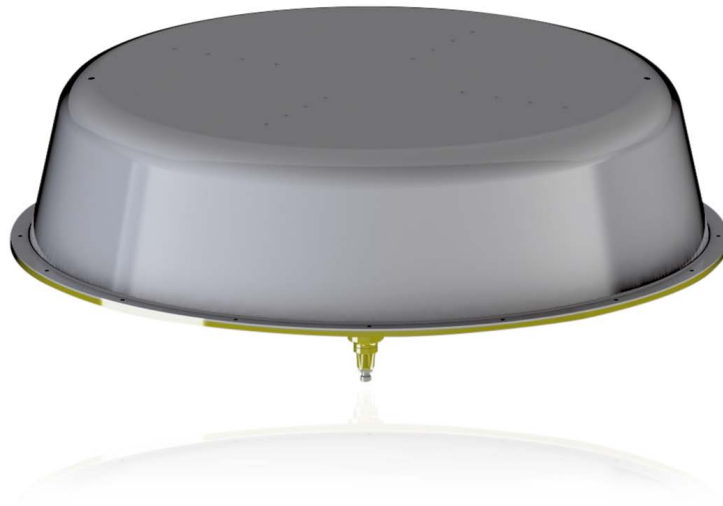


Wideband Transmit Airborne Antenna



SOLUTION FOR

- Air-to-ground high power emission applications

Main features

Technical performance

- Hemispherical radiation pattern for full ground coverage
- Circular polarization
- Wideband, low dispersion

Design

- Compact, low profile spiral antenna over metamaterial ground plane and high temperature ferrite loading
- High power tapered coaxial balun
- Low weight, robust honeycomb radome
- Compliant to the airborne environment

Surface treatment

- Surtec 650 according to MIL-C 5541E class 3
- Polyurethane paint (Blue grey RAL 7031)

Repeatability

- Stiff and robust mechanical design
- Precision machined
- High reliability coaxial connector

Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

Product configuration

Equipment

- Mounting flange
- Low drag protective radome

Related services

- Calibration and maintenance
- Customization

■ Included □ Optional

Electrical characteristics

Part number	SATX100
Type of antenna	Low profile spiral antenna over metamaterial ground plane
Frequency range	0.1 – 4 GHz
Polarization	Circular (RHCP)
Gain	> 0 dBi [0.1 – 0.2] GHz > 4 dBi [0.2 – 0.7] GHz > 7 dBi [0.7 – 4] GHz
VSWR	< 4.4 [0.1 – 0.2] GHz < 1.9 [0.2 – 4] GHz
Return loss	< -4 dB [0.1 – 0.2] GHz < -10 dB [0.2 – 4] GHz
Power handling (CW)	1 kW

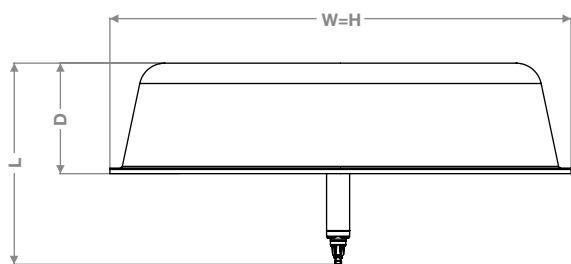
Mechanical characteristics

Part number	SATX100
Dimensions	
W = H	1080
L	471
D	259
Weight (approx.)	61 Kg
RF connector	N-type Female ⁽¹⁾
Materials	Aluminum, ultem, high temperature ferrite, composite honeycomb, fiberglass
Treatment	Surtec 650 ⁽²⁾
Color	Blue grey RAL 7031Matt
Interface	Fixture plate

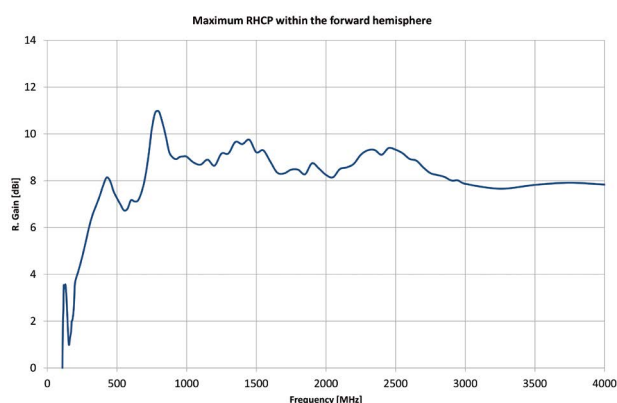
(1) Southwest 312-04SF

(2) According to MIL-C-5541E Class 3

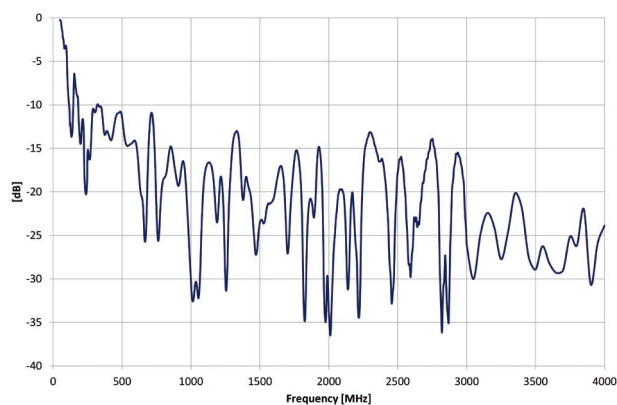
Mechanical drawing



SATX100 realized gain



SATX100 return loss



SATX100 during radiation pattern testing in the MVG SG64 system



Contact your local sales representative for more information
www.mvg-world.com/antennas
salesteam@mvg-world.com