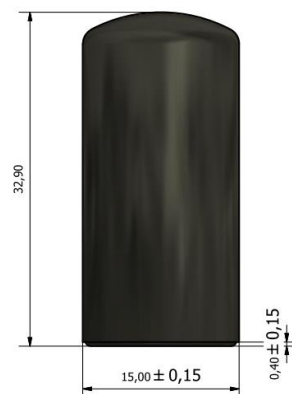


MWSL-1203D "The dielectric-loaded helical antenna solution"

Rugged L1 GPS dielectric loaded antenna: SMA (male)

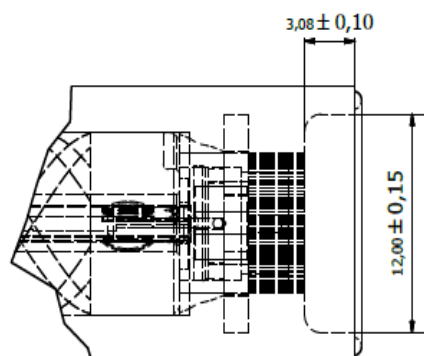


APPLICATIONS

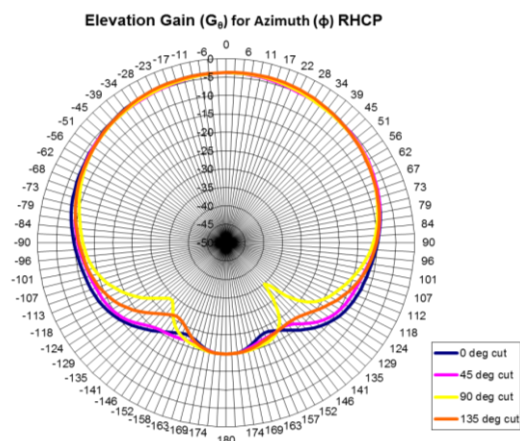
- Asset Tracking
- Hand Held Devices
- UAV/AUV
- Vehicle GPS
- Emergency Locators
- Net Radio Location/Synchronisation
- Seismic Monitors/Measuring
- Marine Tracking

Product Description

The rugged MWSL-1203D antenna is balanced, isolating it from the device and enabling the antenna to reject common mode noise. The design and materials of the antenna constrain its near-field to a very small volume. Therefore materials near the antenna have negligible de-tuning effects and the antenna maintains its pattern and efficiency in the presence of dielectric loading. The rugged MWSL-1203D acts as its own filter, attenuating signals from common cellular and ISM frequency-bands by as much as 30dB. The MWSL-1203D has a built in DC block to enable direct connection to receivers with DC on their input pin.



Typical Elevation Gain Pattern



Key Features

- Negligible detuning in cluttered, dielectric loaded environments (hand-held, body-worn, close proximity to objects)
- Designed for harsh environments: exposed to force, dust and moisture
- Useable in scenarios where orientation of antenna is random
- Filters against interference from cellular and ISM bands
- Integrated O-ring water-seal.

Design Specifications	Typical	Units
Type	Quadrifilar-Helix	-
Frequency	1575.42	MHz
Efficiency	27%	Total spherical
Gain (RHCP)	-3	dBic at zenith
Beamwidth	>135	Degrees
Bandwidth	15	MHz
Axial Ratio	<1.5	at zenith
VSWR	<2.0:1	-
Impedance	50	Ohms
Operating Temp	-40 → +85	°C
Overall dimensions	15.0 (φ) x 32.9 (L)	mm
Weight	14	grams