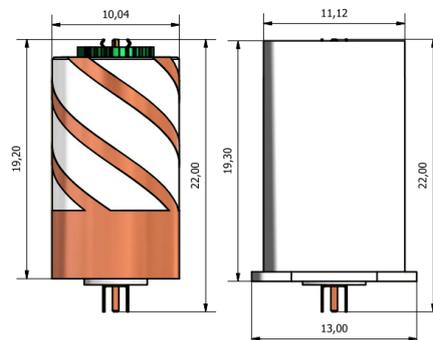


MWSL-1208 "The dielectric-loaded helical antenna solution"

L1 GPS miniature dielectric loaded antenna: 3-pin connection

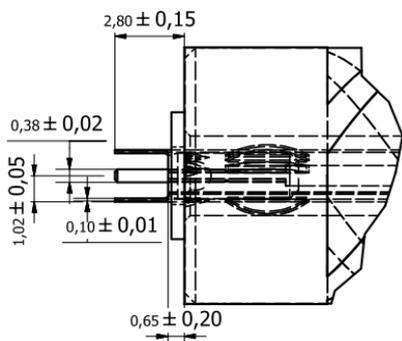
APPLICATIONS

- Asset Tracking
- Hand Held Devices
- UAV/AUV
- Traffic Enforcement
- Emergency Location
- Seismic Monitors/Measuring
- Wildlife Tracking
- Marine Tracking

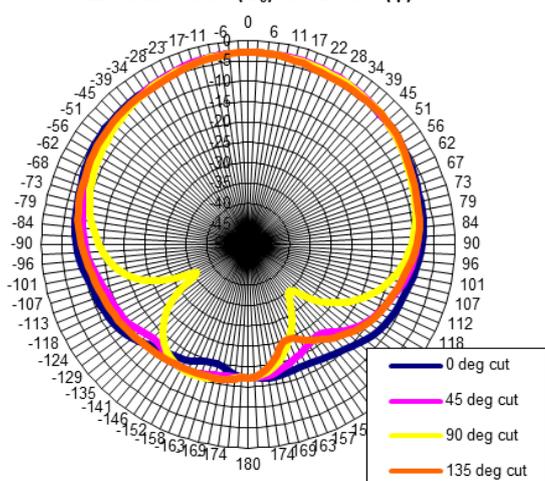


Product Description

The MWSL1208 GPS L1 miniature dielectric-loaded antenna uses MARUWA's distinctive materials technology to provide circularly-polarized gain from a small volume where the housing environment causes a higher degree of frequency down-tuning. For more tightly integrated applications the alternative MWSL1208 should be selected. This product is laser-trimmed for optimum performance and this together with the high relative dielectric constant of the core ensures excellent performance in tightly integrated applications. The MWSL1208 can be supplied with a plastic sleeve to provide mechanical protection and also to stabilise frequency in the presence of a wide variety of housing features and materials. The part can be connected using a special insertion connector that is supplied by IMS Connector Systems GmbH: part number AGK-4234.



Elevation Gain (G_0) for Azimuth (ϕ)



Key Features

- Designed for installation with 10mm gap from antenna side to host PCB ground-plane
- Filters against interference from cellular and ISM bands
- Balanced design rejects common mode noise from ground plane
- Solder-pad installation to device PCB

Design Specifications	Typical	Units
Type	Quadrifilar-Helix	-
Free Space Frequency	1603.5	MHz
Embedded Frequency	1575.42	MHz
Efficiency (Embedded)	27%	Total spherical
Embedded Gain (RHCP)	-3.0	dBic at zenith
Beamwidth	>135	Degrees
Bandwidth	15	MHz
Axial Ratio	<2.0	at zenith
VSWR	<2.0:1	-
Impedance	50	Ohms
Operating Temp	-40 → +85	dB
Overall dimensions	Refer to drawings	mm
Weight (excl radome/sleeve)	7	grams