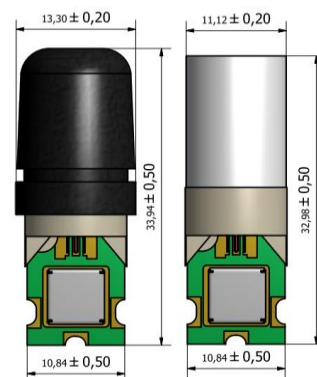


# MWSL-1204 "The dielectric-loaded helical antenna solution"

L1 GPS miniature medium-gain active dielectric loaded antenna

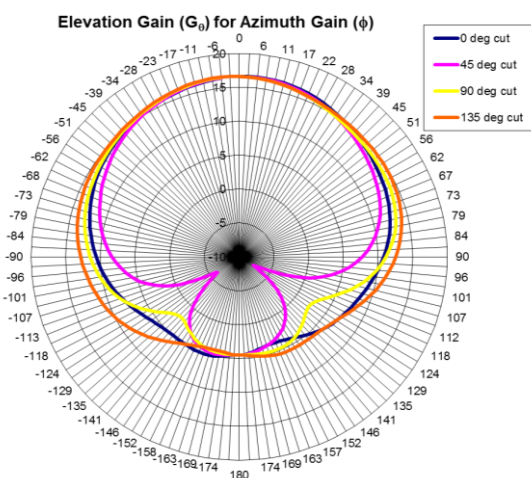
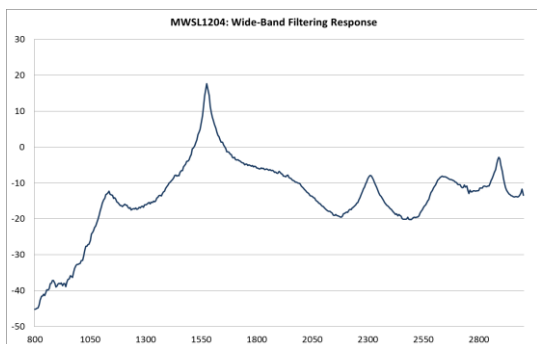
## APPLICATIONS

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



## Product Description

The MWSL-1204 GPS L1 miniature high-gain active dielectric-loaded antenna uses Maruwa's distinctive materials technology to provide unrivaled circularly-polarized gain from a uniquely small volume. It enables excellent GPS performance in tightly integrated devices that require good positional accuracy. By combining a high-quality dielectric antenna with a high-performance low-noise amplifier the MWSL1204 active antenna provides an excellent solution for applications needing active gain input. Available with two cap/sleeve options for external or internal, embedded installation.



## Key Features

- Negligible detuning in cluttered, dielectric loaded environments (hand-held, body-worn, close proximity to objects)
- 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	-
Frequency	1575.42	MHz
Voltage (range)	1.8→3.6	V
Current	3.4	mA
Gain (RHCP)	+16	dBic at zenith
Beamwidth	>135	Degrees
Bandwidth	20	MHz
Axial Ratio	<2.0	at zenith
VSWR	<2.0:1	-
Impedance	50	Ohms
Noise figure	0.8	dB
Operating Temp	-40→+85	°C
Overall dimensions	Refer to drawings	mm
Weight (excl radome/sleeve)	7	grams