

60506 Navilock NL-69AT SMA GPS Antenna 3 m

Technical Details

Specifications

- Frequency Range: 1575.42 ± 1.023 MHz.
- Gain: at Zenith + 5.0 dBic Typ., at 10° Elevation: -1.0 dBic Typ., Mounted on the 70mm*70mm ground plane.
- Polarization: RHCP
- Bandwidth: 15 MHz min. (Return loss -10 dB)
- Resolution Accuracy: 2 MHz, C/A Code
- Axial Ratio: 3.0dB Max., Mounted on the 70mm*70mm ground plane.
- RF Cable: RG174 , $\varnothing 2.7 \pm 0.2$ mm , Black, Cable Length = $3M \pm 5$ cm
- RF Connector: SMA (M)
- Operation Voltage Min: 2.5 V Typ: 3.0 V Max: 5.5V
- Current Consumption Typ: 11 mA Max: 15mA @ 3.0V
- Antenna 25x25 mm

LNA

- Frequency Range: 1575.42 ± 1.023 MHz
- Gain: 28 ± 2 dB (+ $25^\circ\text{C} \pm 5^\circ\text{C}$)
- Noise Figure: 1.6 dB Max. (+ $25^\circ\text{C} \pm 5^\circ\text{C}$) @ 3.0V
- Output Impedance: 50Ω

TOTAL SPECIFICATIONS (Through Antenna, LNA, Cable and Connector)

- Frequency Range: 1575.42 ± 1.023 MHz
- Gain: at Zenith Typ 33 dBic – (cable loss), “Cable Loss = Max.(-1.3 dB / m)” mounted on the the 70mm*70m ground plane
- Output Impedance: 50Ω
- VSWR: 2.0 Max

ENVIRONMENTAL CONDITIONS

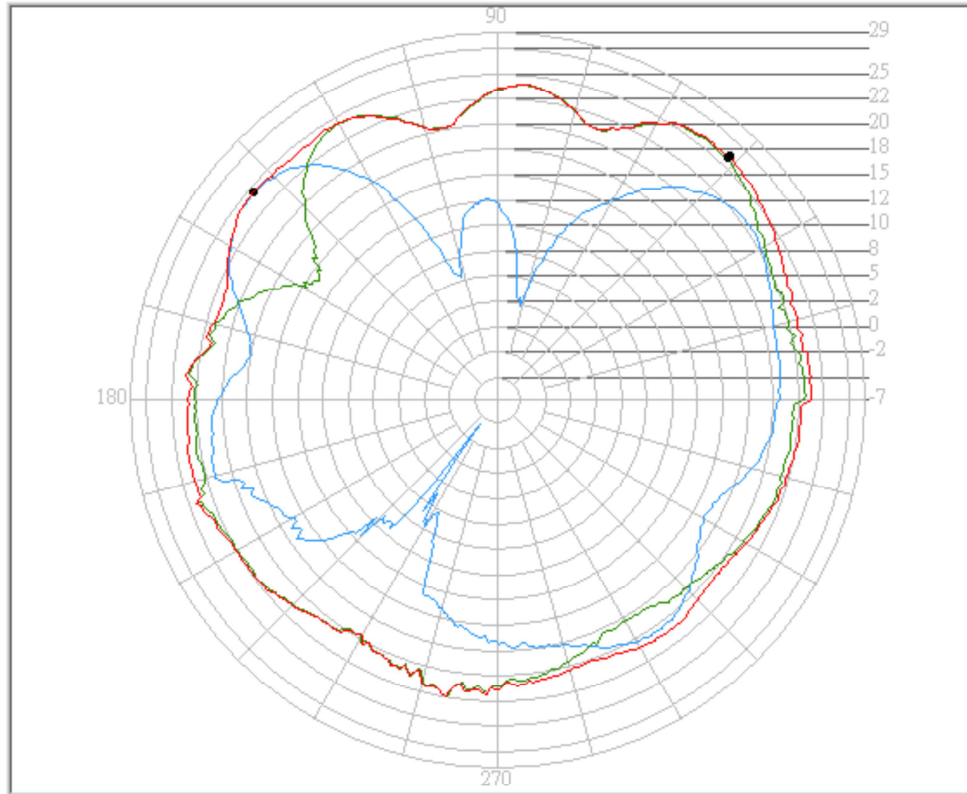
- Operation Temperature: -40°C to + 85°C
- Storage Temperature: -40°C to + 100°C
- Relative Humidity: 40% to 95%

MECHANICAL SPECIFICATIONS

- Mounting Magnet
- Water Proof Deep into water 50cm, 30 Min.
- Shock 10msec. Half sine wave.
- Vibration: 10~200Hz Log. Sweep 3.0G, sweep time: 15 Minutes, 3 Axes.

Horizontal Pattern:

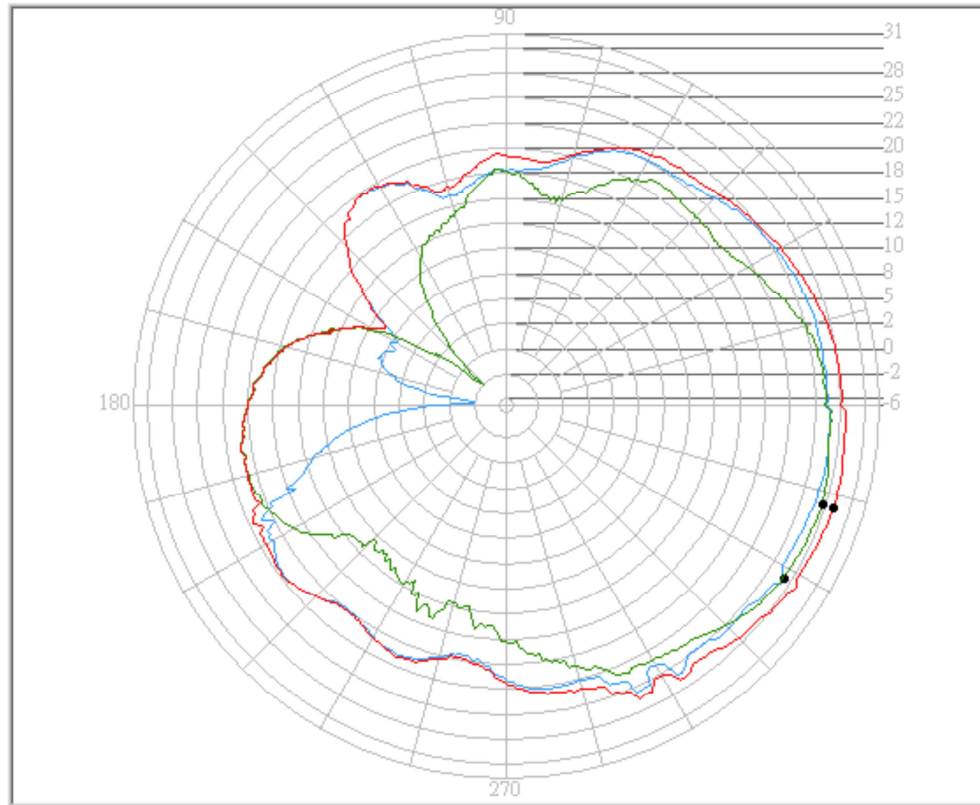
Antenna Pattern Measurement



	Model No.	Test Mode	Freq(MHz)	Source Polarization	Peak Gain(dBi)	Avg. Gain(dBi)	Peak Angle
■	GA31 GND	01	1575	Horizontal	24.38	19.13	139.52
■	GA31 GND	01	1575	Vertical	25.82	22.00	46.40
■	GA31 GND	01	1575	H+V	26.05	22.80	46.51

Vertical pattern:

Antenna Pattern Measurement



	Model No.	Test Mode	Freq(MHz)	Source Polarization	Peak Gain(dBi)	Avg. Gain(dBi)	Peak Angle
	GA31 GND	02	1575	Horizontal	26.90	22.57	328.13
	GA31 GND	02	1575	Vertical	27.21	21.56	342.82
	GA31 GND	02	1575	H+V	28.37	23.78	342.78