Leica AS11
Data sheet

Innovative design

The Leica AS11 features a patented multi-point feeding network and radiation pattern optimization technology. The AS11 not only provides market-leading performance in multipath environments but also achieves both high zenith gain and low gain roll-off from zenith to horizon, without sacrificing tracking performance.

Enhanced tracking

The AS11 is an excellent choice for any application where the sky is partially visible, such as operating close to tree lines or in urban canyons. It is able to track all visible satellites from horizon to zenith providing the maximum number of observations for an enhanced positioning solution.

Stable phase centre

Thanks to stable phase centre of the AS11, signal reception is unaffected by the rotation of the antenna, which simplifies installation and placement of the antenna itself. The minimal phase center variations make this antenna ideal for high accuracy applications.

Leica AS11

PERFORMANCE

Signals received	GPS GLONASS Galileo BeiDou QZSS NavIC L-Band	L1, L2, L5 G1, G2, G3 E1, E5a, E5b, E5a+b (AltBOC), E6 B1, B2, B3 L1, L2, L5 L5
Pass Band	Upper passband Lower passband	1569.0 ± 43.0 MHz (typical) 1232.0 ± 68.0 MHz (typical)
Out-of-Band Rejection	Band edges ± 50 MHz Band edges ± 100 MHz	40 dB (minimum) 60 dB (minimum)
LNA Gain		29 dB (typical)
Gain at Zenith (90°)[1]	L1/B1/E1/G1 L2/B2/E5b/G2 L5/E5a L-Band	+ 5.0 dBic (minimum) + 5.0 dBic (minimum) + 5.0 dBic (minimum) + 5.0 dBic (minimum)
Gain Roll-Off (from Zenith to Horizon)	L1/B1/E1/G1 L2/B2/E5b/G2 L5/E5a L-Band	10 dB 12 dB 12 dB 10 dB
Phase Center Stability		< 2.0 mm
Noise Figure		2 dB (typical)
Axial Ratio		< 0.8 dB (zenith)
VSWR		≤ 2.0 : 1
L1-L2 Differential Propagation Delay		5 ns (maximum)
Group Delay Ripple		<15 ns across L1 frequency band
Nominal Impedance		50 Ω

GENERAL

Dimensions	Diameter / Height	165 mm / 60 mm
Weight		440 g
Power	Input voltage Current	+3.8 to +18 VDC 60 mA (maximum)
Connector	TNC	Female
Environmental Specifications[2]	Temperature	Operating -40 °C to +85°C Storage -55 °C to +85°C
	Humidity	95% (IEC 60068-2-30: 1999)
	Vibration	Random: MIL-STD-810G, Method 514.6 IEC 60068-2-27 Sinusoidal: IEC 60068-2-6
	Shock	MIL-STD-810G, Method 514.6 IEC 60068-2-27
	Drop	Withstands topple over from a 2 m survey pole onto hard surfaces
	Rain, dust, sand and wind	IP68 & IP69K
Mounting		Standard 5/8" Whitworth thread
Compliance	RoHS China RoHS	EU Directive 2011/65/EU ACEIP GB/T 26572-2011

1. G1 zenith gain is +4 dBic (typical).
   L5 zenith gain is +3 dBic (typical).
2. Testing validated in an antenna enclosure.

Leica Geosystems AG
Heinrich-Wild-Strasse
9435 Heerbrugg, Switzerland
+41 71 727 31 31

- when it has to be **right**

Leica Geosystems