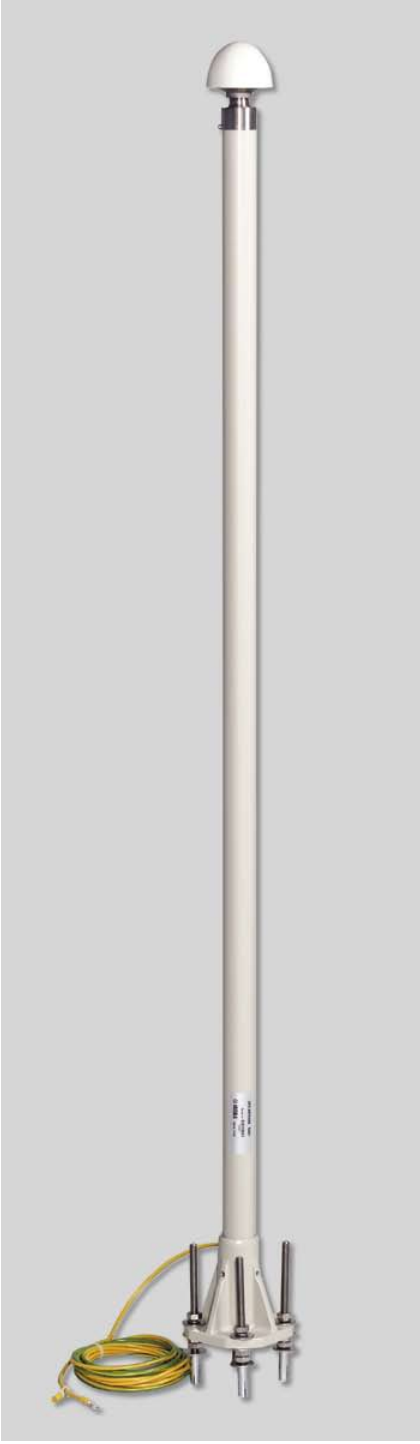
Vaisala GPS Antenna GA31



The Vaisala GPS Antenna GA31 is used with the Vaisala Sounding Systems for the local reception of GPS signals when performing GPS soundings. This way the system gets orbital and other navigational data directly from the GPS satellites. The local reception is also used to get differential corrections for positioning.

Installation

GPS signal reception requires an unobscured line-of-sight to the GPS satellites. Seen from the zenith, an open sky angle of at least 75 degrees is necessary. The best reception is achieved with a location that has a clear view of the sky down to the horizon in every direction.

The Vaisala GPS Antenna GA31 is equipped with a 35 dB pre-amplifier. A band pass filter renders the GA31 immune e.g., to Inmarsat and radar interference.

The Vaisala GPS Antenna GA31 is sealed with epoxy for protection against ambient conditions. It is shipped with a 1.5-meter aluminum pole with a cast-aluminum flange and pole mounting clips and 33 meters of cable.

Technical data

General	
Primary power	+ 5 volts DC (± 10%)
Power consumption	22 mA, 0.11 watts (nominal)
Output impedance	50 Ohms
Frequency	L1 (1575 MHz)
Polarization	Right-Hand Circular Polarization (RHCP)
VSWR	2:1
Axial ratio	2 dB at zenith, 10 dB above 10° elevation
Gain	35 dB (nominal)
Noise figure	2.75 dB (nominal)
Pass-band width	50 MHz
Cable attenuation	17 dB > A > 7dB at 1.5 GHz
Azimuth coverage	360° (omni-directional)
Elevation coverage	0° to 90° elevation (hemispherical)
Height	1.6 m
Weight (without cables)	2.6 kg
Mounting	Pedestal flange or pole clamps

Environmental	
Operating temperature range	-40 °C to 85 °C
Operating humidity range	0 … 100 %RH
Maximum wind speed	65 m/s
Operating precipitation	Unlimited
Storage temperature range	-55 °C to 100 °C
Storage humidity range	0 … 100 %RH

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For more information, visit www.vaisala.com or contact us at sales@vaisala.com

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