

Datasheet

Active Diapason Antenna 1090 MHz High Gain version

The Active Diapason Antenna 1090MHz consists of a vertically stacked, two element antenna element followed by a low noise high gain receive amplifier and bandpass.

Especially designed for situation with

- Low sensitive receivers
- Long cable runs with high loss (up to 30dB)
- Long range applications
- Small antenna with high sensitivity

Note: Due to the nature of a built-in amplifier this antenna is not recommended for locations with nearby transmitters.

Specification Active Diapason 1090MHz HG

Electrical Specification

Electrical Data	Value
Type	Ground Plane Collinear $2x \frac{1}{2}\lambda$
Design Frequency	1090 MHz (ADS-B, Mode-S, Mode-A/C)
Impedance	50 Ω
Radiation (H-plane)	360° omnidirectional
Radiation (E-plane)	Beamwidth @ -3 dB: 45°
Polarization	Linear Vertical
Antenna Gain	4.0 dBi (native antenna)
Amplifier Gain	17 dB
Amplifier Noise Figure	less than 1.0 dB, typ. 0.7 dB
Maximum Transmit Power	not designed for transmission
Grounding Protection	All metal parts are DC-grounded
Connector	N-female, gold plated central pin

jetvision Antennas

Active Diapason Antenna
1090 MHz

Product Number: 68201
68206

Usage:


Omnidirectional Antenna with built in low noise receiver amplifier for high range and high cable attenuation applications

Low Noise Amplifier and Band Pass Specification

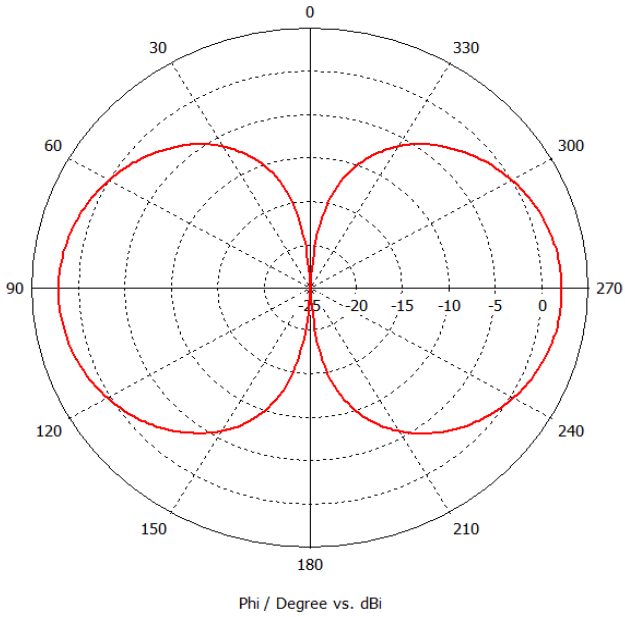
Mechanical Data	Value
Gain	17 dB
Noise Figure	less than 1.0 dB, typ. 0.7 dB
Power Supply	5V
Power Consumption	60 mA (typ.)
Power Supply Connector	Inline over coax cable (bias tee included in SKU 68201/69201)

Mechanical Specification

Mechanical Data	Value
Housing & Radome Material	Fiberglass, Chromed Brass, PCB
Fields of Application	Outside, weatherproof
Bracket, Hardware Material	Aluminum, Stainless steel
Wind Load / Resistance	18 N @ 150 km/h / 200 km/h
Wind Surface	0.05 m ²
Height (approx.)	525 mm
Weight (approx.) including bracket	230 g
Installation Type	Mast Ø25 mm - 62 mm with stainless steel V-bolt
Part Number	68201, 68206

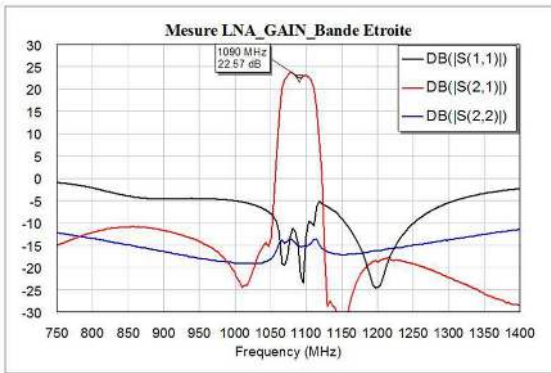
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Radiation Pattern in E-Plane (1090MHz)

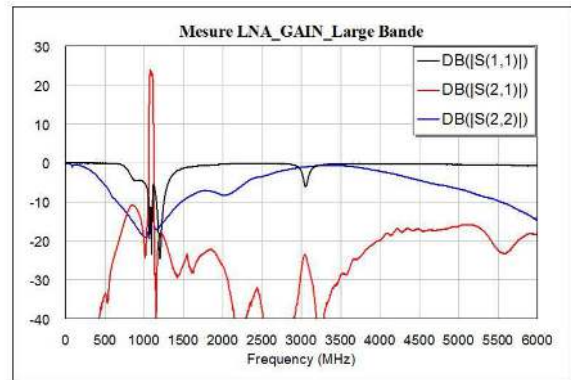



Frequency: 1.090GHz
Main lobe magnitude: 4.0Bi

Bandfilter Narrow Band Passband



Bandfilter Wide Band Passband



	Notes:	
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