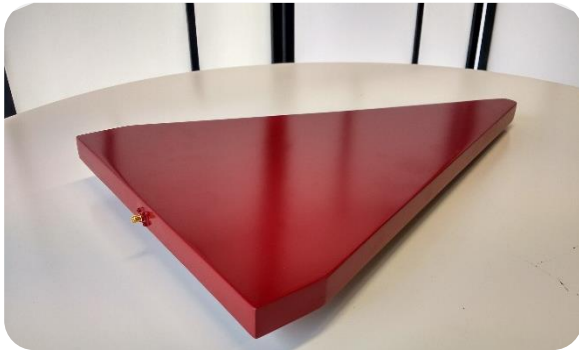




ANTERAL

Log-periodic Antenna



- **Broadband bandwidth from 500 MHz up to 18 GHz.**
- **7 dB typical average gain.**
- **Lightweight.**
- **Optimized high performance design according customer specifications.**

Description

Anteral's Log-periodic Antenna is a dipole array antenna which exhibits extremely broadband bandwidth with frequency independent properties in its design band. Dipoles are printed on a RF dielectric substrate making this antenna of light weight but robust design.

The Log-periodic Antenna is useful for any application where linearly polarized radiation, moderate gain and stable impedance and radiation pattern performance over a wide bandwidth is required. Popular applications include terrestrial television, EMC measurement, wireless communications and electronic warfare.

Additional Notes

Anteral offers custom designs with optimized performance according customer requirements.

The performance of all devices is checked before delivery.

Models

LOGP-SMA-0518-R	Log Periodic antenna, BW=0.5-18 GHz with radome
LOGP-SMA-0518	Log Periodic antenna, BW=0.5-18 GHz
LOGP-SMA-218-R	Log Periodic antenna, BW=2-18 GHz with radome
LOGP-SMA-218	Log Periodic antenna, BW=2-18 GHz

Mechanical and Electrical Specifications

Model	LOGP-SMA-0518-R	LOGP-SMA-218-R
Frequency Range	500 MHz - 18 GHz	2 GHz - 18 GHz
Average Gain	7 dB	7 dB
VSWR	< 1.92	< 1.43
Feed	SMA female connector	SMA female connector
Materials	I-Tera RF substrate	I-Tera RF substrate
Dimensions	492 mm × 325 mm × 23 mm	142 mm × 91 mm × 23 mm

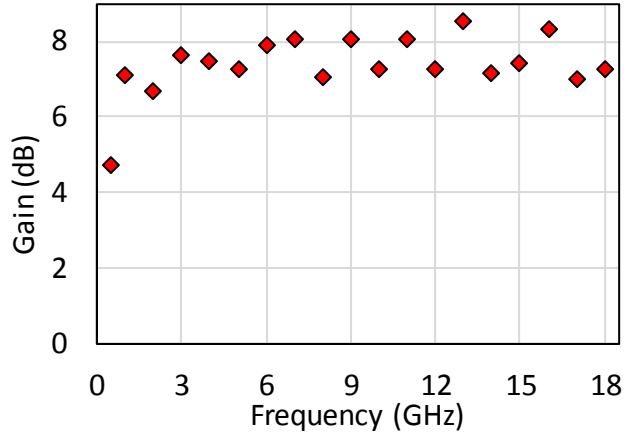
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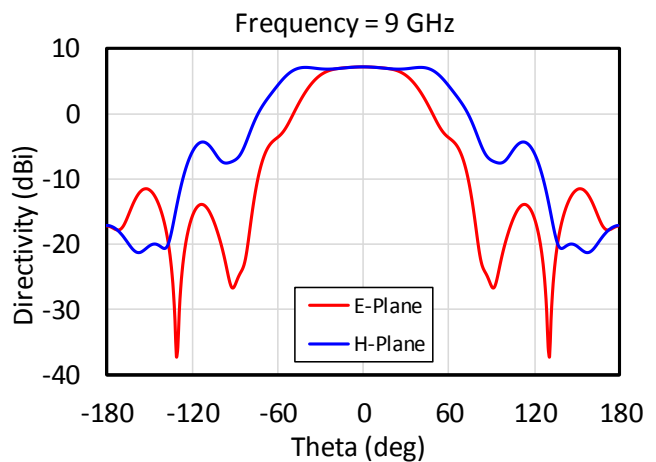
Radiation Pattern Parameters

Gain Vs Frequency

Frequency (GHz)	Gain (dB)	FWHM (deg.)	
		E-plane	H-plane
0.5	4.7	72.3	137.4
1	7.1	73.1	124.6
2	6.7	70.4	125.9
3	7.7	68.6	113.8
4	7.5	72.7	119.2
5	7.3	65.6	121.6
6	7.9	54.3	94.7
7	8.1	76.4	117.1
8	7.1	75.4	121
9	8.1	61.4	94.3
10	7.3	78	119.1
11	8.1	63.4	97
12	7.3	75.9	117.8
13	8.6	51.3	81.3
14	7.2	73.6	116.7
15	7.5	76.1	114.1
16	8.4	62.5	90.6
17	7.0	75.3	120.3
18	7.3	76.7	115.3



Radiation Pattern



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Log-periodic Antenna

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Environmental specifications

- Antenna radome is made of rigid polyurethane foam which provides protection versus water, fire, chemical agents and mechanical damage to the electrical parts.
- The whole antenna is protected with a coat binder specifically designed to withstand extreme weather conditions. This coating provides long durability preventing antenna from corrosion, oxidation, humidity, fungus, rain, sun and temperature variations.
- All junctions (radome, SMA connector and threaded base) are sealed with a bi-component epoxy resin to warrant totally isolation from fluids.
- The SMA connector is gold coated to assure long durability.
- The antenna lacks mechanical parts susceptible to vibrational damage.

Categories	Average Values
Temperature	-60° to +85°C
Altitude	10.000 meters
Temperature shock	As per low and high temperatures
Humidity	100 %
Rain	Drip, normal and heavy
Fungus	By declaration
Salt fog	Long-term exposure (>48 hours)
Sand and dust	Blowing dust
Fluids contamination	Alcohols, fuels, oils, hydraulic fluids
Vibration	Random and transportation vibration
Compressive strength	9 MPa (DIN EN ISO 604)
Bending strength	12 MPa (DIN EN ISO 178)
Surface hardness	35 - 55 Shore D (DIN 53505)
Fire Resistance	Self-extinguishing (ASTM D-1692 test method)

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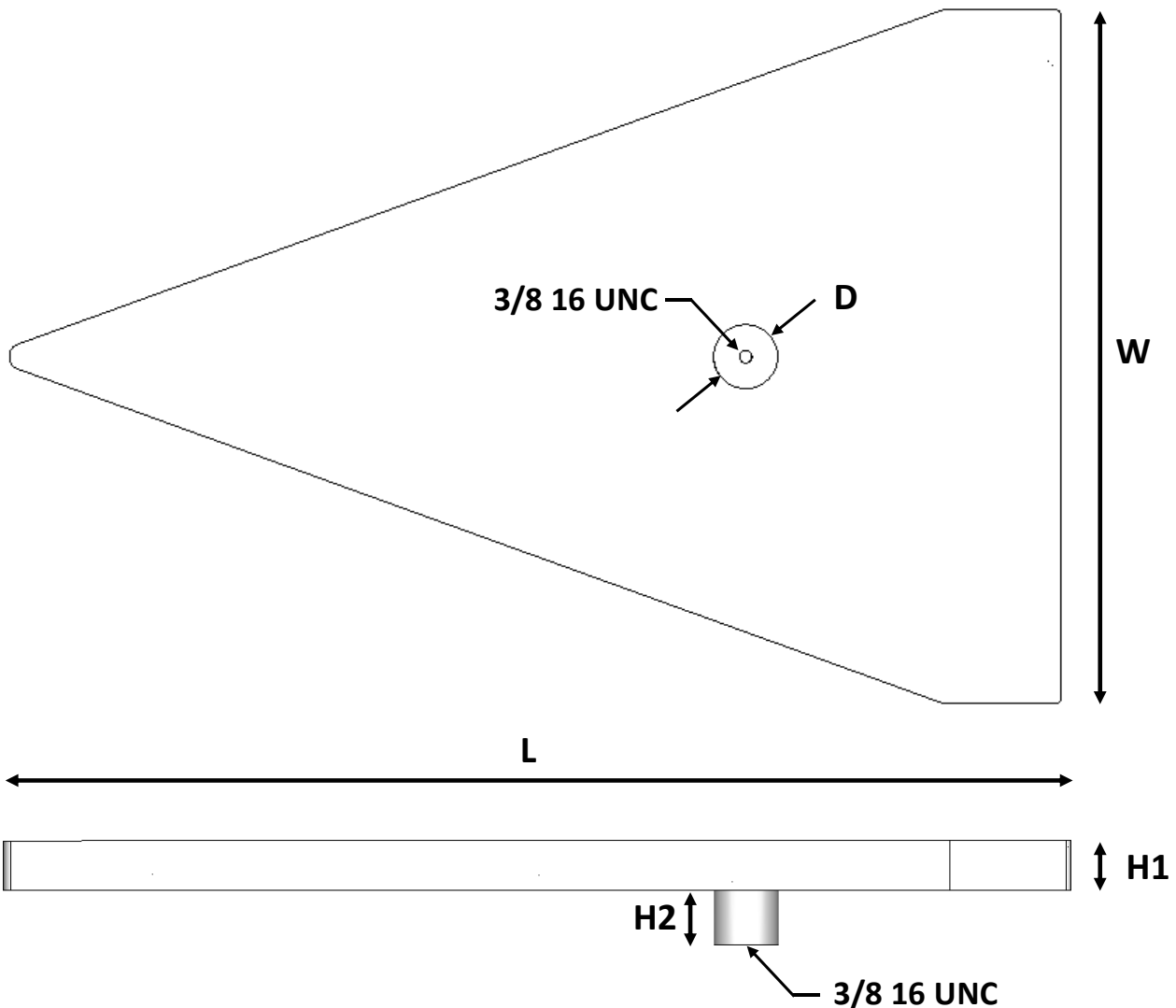


Log-periodic Antenna

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Dimensions

Model	L	W	H1	H2	D
LOGP-SMA-0518-R	492 mm	325 mm	23 mm	25 mm	30 mm
LOGP-SMA-218-R	142 mm	91 mm	23 mm	25 mm	30 mm



*Anteral offers custom antenna holders besides the standard thread 3/8 16 UNC

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