

SHF Antennas

Log-Periodic Directional Antenna with Preamplifier R&S® HL 050S7



850 MHz to 26.5 GHz

**Log-periodic directional antenna
consisting of R&S® HL 050 and broadband
preamplifier for linear polarization**

Features

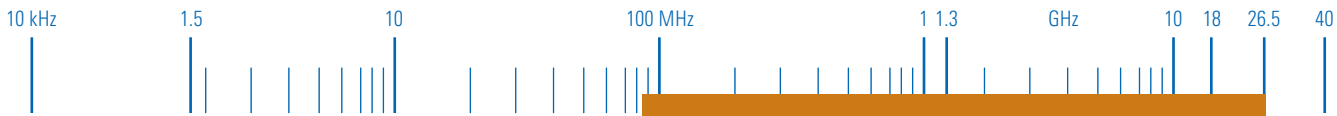
- ◆ Extremely wide frequency range
- ◆ Rotation-symmetrical radiation patterns
- ◆ High gain due to V-shaped configuration of antenna elements
- ◆ No reduction in S/N due to the use of a low-noise amplifier at the antenna output
- ◆ Ideal as a feed for the SHF Directional Antenna Systems R&S® AC 090 to R&S® AC 300

Brief description

The Log-Periodic Directional Antenna R&S® HL 050S7 consists of a Log-Periodic Antenna R&S® HL 050 with preamplifier and is suitable for the reception of linearly polarized waves.

The integrated preamplifier is extremely broadband and low-noise. It prevents a significant reduction in S/N due to loss in RF cables connecting, for instance, the antenna to a receiver.

Due to its almost rotation-symmetrical radiation pattern, the R&S® HL 050S7 offers optimum secondary radiation characteristics for use as a feed in reflector antennas. The antenna is preferably used as a feed for the SHF Directional Antenna Systems R&S® AC 090 to R&S® AC 300.



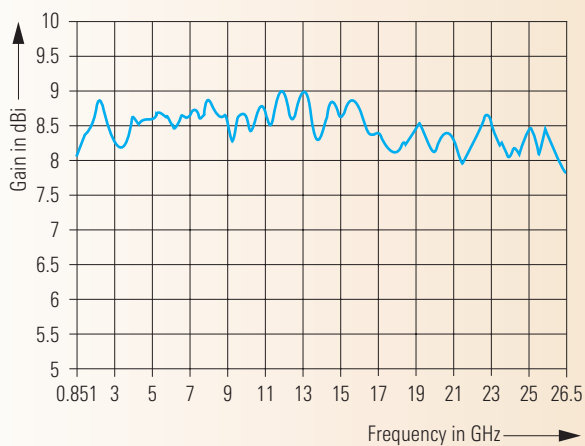
Specifications

Frequency range	850 MHz to 26.5 GHz	Power supply	
Polarization	linear	Amplifier	15 V/0.2 A (max.)
Input impedance	50 Ω	Switching relay	12 V/0.25 A (max.)
VSWR (with preamplifier)	typ. <2.5	Connector	PC 3.5 female
Gain (without preamplifier)	typ. 8.5 dBi	Control connector	10 pin female
Gain	typ. >27 dB	MTBF	>100 000 h
Noise figure	typ. <3.6 dB	Operating	
1 dB compression point		temperature range	-30 °C to +55 °C
(at output)	typ. >5 dBm	Max. wind speed	180 km/h
		Dimensions	
		(diameter \times height)	approx. 210 mm \times 390 mm
		Weight	approx. 0.8 kg

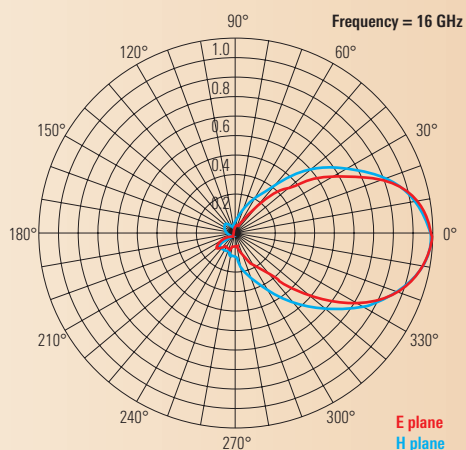
Ordering information

Log-Periodic Directional Antenna with Preamplifier	R&S®HL 050S7	4064.6040.02
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Recommended extras		
Control Unit	R&S®GB 016	4056.7006.02
Control Cable, 10 m	R&S®GB 016Z1	4056.7270.02
Microwave Cable, 5 m	R&S®AC 008W2	0751.6931.04
Microwave Cable, 10 m	R&S®AC 008W2	0751.6931.05
Adapter for R&S®HZ-1	R&S®HL 025Z1	4053.4006.02
Wooden Tripod	R&S®HZ-1	0837.2310.02



Typical gain (without preamplifier)



Typical radiation pattern