

R&S®HL050S7 LOG-PERIODIC DIRECTIONAL ANTENNA WITH PREAMPLIFIER

850 MHz to 26.5 GHz

Log-periodic directional antenna consisting of the R&S®HL050 and a broadband preamplifier for linear polarization



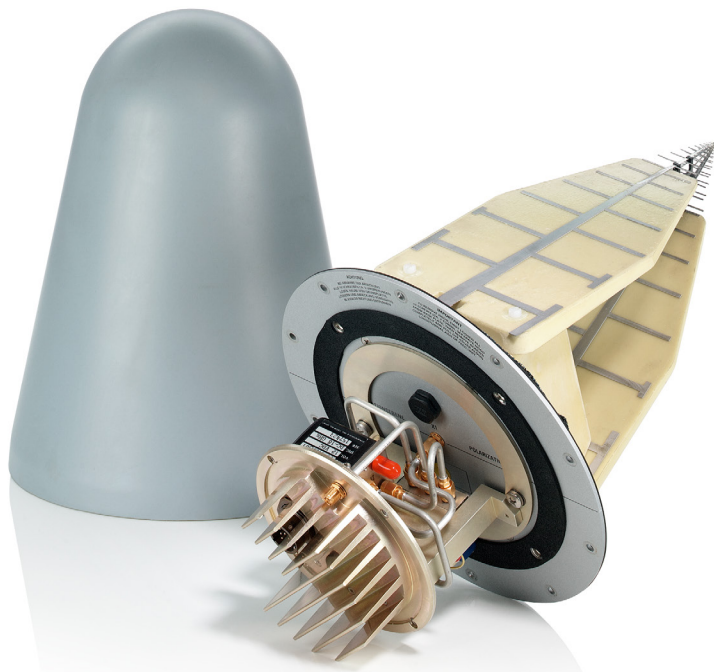
The R&S®HL050S7 log-periodic directional antenna consists of the R&S®HL050 log-periodic antenna with preamplifier and is suitable for the reception of linearly polarized waves.

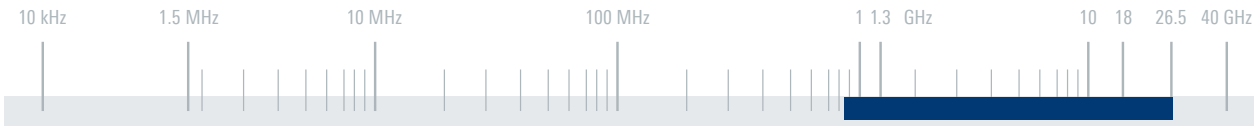
The extremely broadband and low-noise integrated preamplifier prevents a significant reduction in S/N due to loss in RF cables connecting the antenna to a receiver.

Due to its almost rotation-symmetrical radiation pattern, the R&S®HL050S7 offers optimum secondary radiation characteristics for use as a feed in reflector antennas. It is ideal as a feed for the R&S®AC008 microwave directional antennas.

Key facts

- ▶ Extremely wide frequency range
- ▶ Rotation-symmetrical radiation patterns
- ▶ Stable radiation patterns/optimum EUT illumination
- ▶ 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
- ▶ Usable as a feed for R&S®AC008 microwave directional antenna
- ▶ Preamplifier can be bypassed via control unit, e.g. at high field strengths





Specifications		
Frequency range		850 MHz to 26.5 GHz
Polarization		linear
Input impedance		50 Ω
VSWR (with preamplifier)		< 3
Practical gain	bypass mode	7.5 dB (typ.)
	amplifier mode	37.5 dB (typ.)
Noise figure	amplifier and bypass network	≤ 3.6 dB
1 dB compression point (at output)		> 5 dBm
Power supply	amplifier	15 V/0.2 A (max.)
	switching relay	12 V/0.75 A (max.)
Connector		PC 3.5 female
Control connector		10 pin female
MTBF		> 100 000 h
Operating temperature range		-30°C to +55°C
Maximum wind speed		180 km/h
Dimensions	Ø × H	approx. 210 mm × 390 mm (8 in × 15 in)
Weight		approx. 1.7 kg (4 lb)

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Ordering information	Type	Order No.
Log-periodic directional antenna with preamplifier	R&S®HL050S7	4064.6040.02
Log-periodic directional antenna with preamplifier, calibrated (up to 18 GHz)	R&S®HL050S7	4064.6040.03

Recommended extras		
Control unit	R&S®GB016	4056.7006.03
Control cable, length: 10 m	R&S®GB016Z1	4056.7270.02
Microwave cable, length: 5 m	R&S®AC008W2	0751.6931.04
Microwave cable, length: 10 m	R&S®AC008W2	0751.6931.05
Adapter for R&S®HZ-1	R&S®HL025Z1	4053.4006.03
Wooden tripod	R&S®HZ-1	0837.2310.02
Open switch and control platform, without touchscreen	R&S®OSP-220	1528.3105.02
Open switch and control platform, with touchscreen	R&S®OSP-230	1528.3105.03
Module for R&S®OSP, for controlling R&S®HL024Sx and R&S®HL050S7	R&S®OSP-BS016	4118.6007.03
Module for R&S®OSP, for controlling R&S®AM524 and R&S®HL050S7	R&S®OSP-BS524	4118.6007.02

Typical radiation patterns

