

R&S®HL047 HIGH GAIN LOG- PERIODIC ANTENNA

80 MHz to 6 GHz

Log-periodic antenna for EMS measurements



The R&S®HL047 high gain log-periodic antenna offers excellent broadband characteristics and a radiation pattern that is approximately rotation-symmetrical, making it particularly suitable for EMS immunity testing.

The high antenna gain means that in comparison with existing systems, the required field strengths can be achieved with a lower amplifier power.

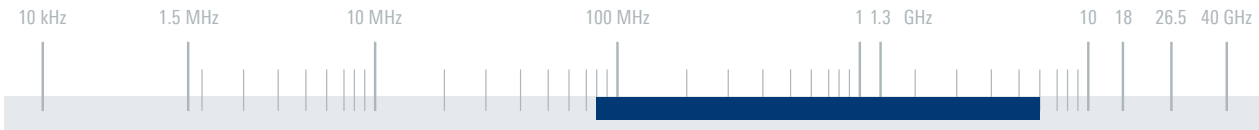
The end radiators are detachable to reduce the antenna dimensions and weight for easy transportation and storage. Operation at frequencies above 200 MHz is possible without the end radiators.

Its compact size, extremely wide frequency range and detachable radiators make the antenna ideal for use in test chambers.

Key facts

- ▶ High antenna gain, i.e. low amplifier power required
- ▶ Suitable for susceptibility and emission measurements
- ▶ No change of antennas needed over wide frequency range
- ▶ Uniform object irradiation due to optimized radiation patterns
- ▶ Compact size
- ▶ Antenna gain approximately constant over the whole frequency range
- ▶ Detachable radiator structure allows measurements with smaller antenna for frequencies above 200 MHz



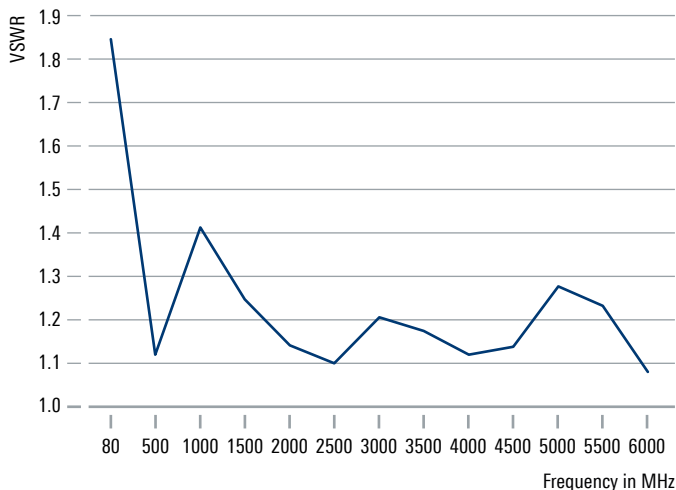


Specifications		
Frequency range		80 MHz to 6 GHz
	without rear radiators	200 MHz to 6 GHz
Polarization		linear
Input impedance		50 Ω
VSWR		1.5 (typ.)
Realized gain		see diagram
Maximum input power (T = +40°C)	< 100 MHz	1400 W (CW)
	< 1 GHz	500 W (CW)
	< 3 GHz	300 W (CW)
	< 6 GHz	200 W (CW)
RF connector		N female
Operating temperature range		+5°C to +40°C, in line with MIL-STD-810E
Class of application		indoor laboratory, anechoic chamber
Dimensions (W × H × L)	without tripod	approx. 1.10 m × 1.89 m × 1.96 m (43 in × 74 in × 77 in)
	without rear radiators	approx. 0.78 m × 0.97 m × 1.3 m (31 in × 38 in × 51 in)
	with tripod	approx. 1.07 m × 2.15 m × 1.96 m (42 in × 85 in × 77 in)
Weight	without rear radiators	approx. 0.71 m × 1.69 m × 1.3 m (28 in × 67 in × 51 in)
	without tripod	approx. 10 kg (20 lb)
	with tripod	approx. 22 kg (45 lb)

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Ordering information	Type	Order No.
High gain log-periodic antenna	R&S®HL047	4108.8007.02
Recommended extra		
Movable tripod	R&S®HL047Z1	4108.8820.02

Typical VSWR



Typical gain (meas.)

