

HL300 Handheld Log- Periodic Antenna

450 MHz to 8 GHz

Portable directional antenna for locating transmitters
and interference sources



The HL300 handheld log-periodic antenna in combination with handheld spectrum analyzers (e.g. FSH4/8/13/20) is used for determining RF parameters and localizing interference sources.

The frequency range from 450 MHz to 8 GHz is covered by a log-periodic dipole array antenna structure with a distinct directional pattern. The antenna does not have to be tuned within its frequency range.

A built-in GPS receiver with an integrated patch antenna and an electronic compass provides position and bearing data for further processing in the connected spectrum analyzer (e.g. FSH4/8/13/20).

A toggle switch on the antenna handle activates or deactivates the low noise amplifier (LNA) inside the FSH4/8/13/20, allowing the use of the system in the vicinity of strong transmitters.

Key facts

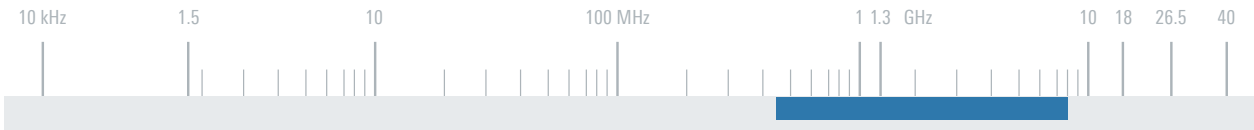
- Unambiguous and nearly frequency-independent radiation pattern
- Handy size yet extreme broadband capability
- Fatigue-free operation due to antenna design and materials used, which keep weight to a minimum
- Integrated GPS receiver and electronic compass
- Power supply via the connected FSH4/8/13/20 handheld spectrum analyzer

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Specifications	
Frequency range	450 MHz to 8 GHz
Polarization	vertical (horizontal by turning the antenna 90°)
Nominal impedance	50 Ω
VSWR	
450 MHz to 500 MHz	< 3
500 MHz to 8 GHz	< 2.5
RF connector	N male on cable (approx. 1 m emerging from handle)
Power supply (via FSH4/8/13/20)	5 V DC (± 0.2 V) (max. 100 mA)
MTBF	> 100000 h (in line with SN 29500, ground benign, +45°C)

GPS acquisition time	26 s (typ.) (cold start)
Time pulse frequency	1 Hz
Time pulse accuracy	30 ns RMS (under good GPS conditions)
Electronic compass range	
For azimuth	0° to 360° in 1° steps
For elevation	-60° to 60° in 1° steps
Electronic compass accuracy	
For 0° elevation	2° RMS (typ.)
For ± 60° elevation	4° RMS (typ.)
Operating temperature range	-30°C to +55°C
Dimensions (W × H × L)	approx. 310 mm × 90 mm × 580 mm (12.2 in × 3.5 in × 22.8 in)
Weight	approx. 1 kg (2.2 lb)

Ordering information	Type	Order No.
Handheld Log-Periodic Antenna	HL300	4097.3005.02
Recommended extras		
Handheld Spectrum Analyzer	FSH4/8	1309.6000.xx
Handheld Spectrum Analyzer	FSH13/20	1314.2000.xx

