

SHF Antennas

SHF Directional Antenna

System R&S® AC 300



1 GHz to 18 GHz/0.85 GHz to 26.5 GHz

**Extremely broadband directional antenna
for radiomonitoring, steerable in azimuth
and elevation**

Features

- ◆ Extremely broadband without change of feed
- ◆ 3 m reflector diameter
- ◆ Enhanced antenna gain
- ◆ Adjustable in azimuth and elevation
- ◆ System control via PC user interface (Windows NT/2000)



Brief description

The R&S® AC 300 is a stationary directional antenna that can be adjusted in azimuth and elevation.

The reflector has a diameter of 3 m and – depending on the feed used – receives signals in the range 1 GHz to 18 GHz or 0.85 GHz to 26.5 GHz. The frequency range can be extended to up to 40 GHz by flange-connected options.

The R&S® AC 300 is used for radiomonitoring tasks, for instance.

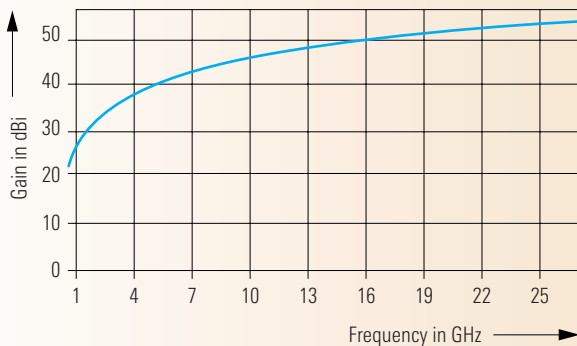


Specifications

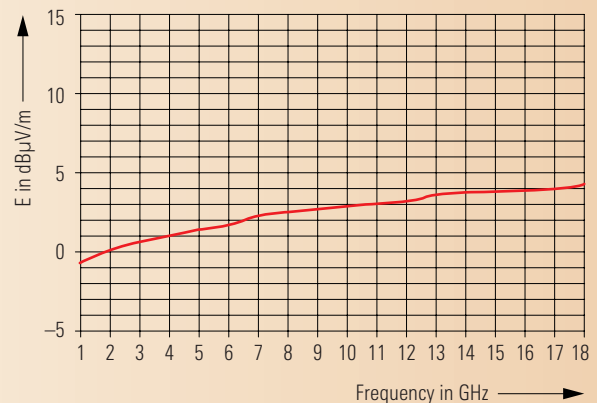
Frequency range		Range of rotation	
Depending on feed	1 GHz to 18 GHz	Azimuth	$\pm 180^\circ$
	0.85 GHz to 26.5 GHz	Elevation	-5° to $+95^\circ$
Gain	26 dBi to 51 dBi	Connector	RPC3.5 female
	22 dBi to 51 dBi	MTBF	>8000 h
Half-power beamwidth	6° to 0.35°	Operating	
Min. field strength		temperature range	-30°C to $+55^\circ\text{C}$
With R&S®HL024S9	2 dB($\mu\text{V}/\text{m}$), ($\Delta f = 1\text{ MHz}$)	Max. wind speed	160 km/h (without ice deposit)
		Reflector diameter	approx. 3 m
		Weight	approx. 1460 kg

Ordering information

SHF Directional Antenna			
System	R&S®AC 300	4051.6546.00	
Feed options (see also pages 122 to 134):			
Log-Periodic Antenna, 0.85 GHz to 26.5 GHz			
Basic model	R&S®HL050S1	4065.0100.02	
With preamplifier	R&S®HL050S7	4064.6040.02	
Crossed Log-Periodic Antenna, 1 GHz to 18 GHz			
Basic model	R&S®HL024S1	4055.1256.02	
With passive			
polarization network	R&S®HL024S2	4052.1003.02	
With preamplifier,			
1 RF output	R&S®HL024S7	4042.8505.02	
	With preamplifier,		
	2 RF outputs	R&S®HL024S8	4042.7509.02
	With active		
	polarization network	R&S®HL024S9	4047.6252.02
Recommended extras			
Reflector Antenna, 18 GHz to 26.5 GHz,			
29 dBi to 33 dBi	R&S®AC308R2	4051.6001.02	
Reflector Antenna, 26.5 GHz to 40 GHz,			
33 dBi to 36 dBi	R&S®AC308R3	4051.6253.02	



Typical gain



Typical minimum receive field strength
(for a receiver with $F = 15\text{ dB}$, $\Delta f = 1\text{ MHz}$)