

R&S®AC120 SHF Directional Antenna System

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
- 1.2 m reflector diameter
- Adjustable in azimuth and elevation
- System control via PC user interface (Windows NT/2000/XP)
- Use of the R&S®HL050S7 allows the preamplifier to be bypassed at high field strengths (also applies to the R&S®HL024S7/S8)

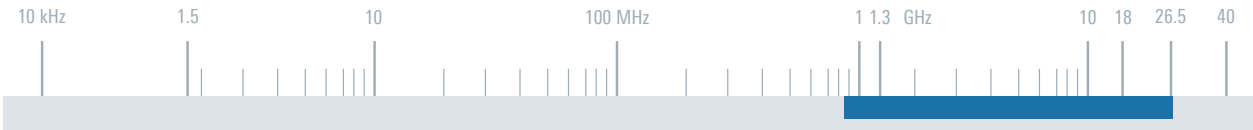
Brief description

The R&S®AC120 is a stationary directional antenna that can be adjusted in azimuth and elevation.

The reflector has a diameter of 1.2 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®AC120 is used for radiomonitoring tasks, for instance.



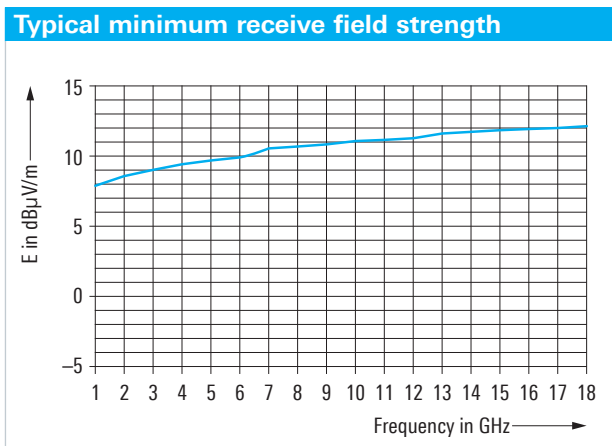
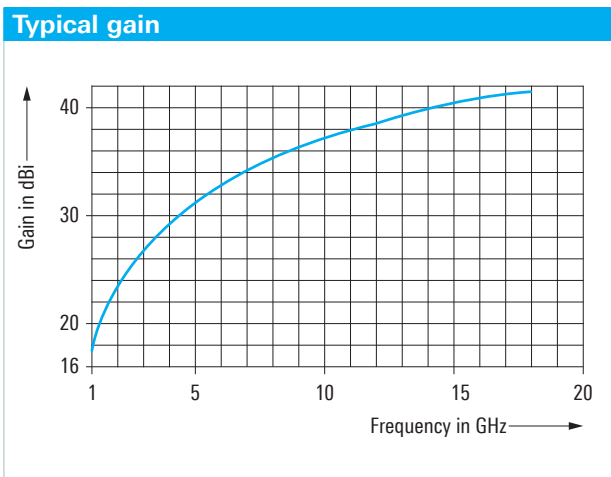


| Specifications | |
|-------------------------------------|---------------------------------------|
| Frequency range (depending on feed) | 1 GHz to 18 GHz, 0.85 GHz to 26.5 GHz |
| Gain | 18 dBi to 42 dBi (1 GHz to 18 GHz) |
| Half-power beamwidth | 17° to 0.9° (1 GHz to 18 GHz) |
| Min. field strength | see figure below |
| Range of rotation | |
| Azimuth | ±180° |
| Elevation | -5° to +95° |
| Speed of rotation | |
| Azimuth | ≥5°/s |
| Elevation | >1.5°/s, typ. 2°/s |

| | |
|-----------------------------|-----------------------------------|
| Connector | RPC3.5 female |
| MTBF | >8000 h |
| Operating temperature range | -30°C to +50°C |
| Max. wind speed | 180 km/h (without ice deposit) |
| Reflector diameter | approx. 1.2 m (approx. 47.2 in) |
| Weight | approx. 170 kg (approx. 374.8 lb) |

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| Ordering information | Type | Order No. |
|---|----------------------|--------------|
| SHF Directional Antenna System | R&S®AC120 | |
| Feed options (see also pages 136 to 148) | | |
| 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 |



With R&S®HL024S9 (for a receiver with F = 15 dB, Δf = 1 MHz).