

R&S®HL024S8 Crossed Log- Periodic Antenna

1 GHz to 18 GHz

Log-periodic directional antenna consisting of the R&S®HL024A1 and two broadband preamplifiers for horizontal and vertical polarization



The R&S®HL024S8 consists of the R&S®HL024A1 crossed log-periodic antenna and two broadband preamplifiers. It is suitable for the reception of linearly polarized waves.

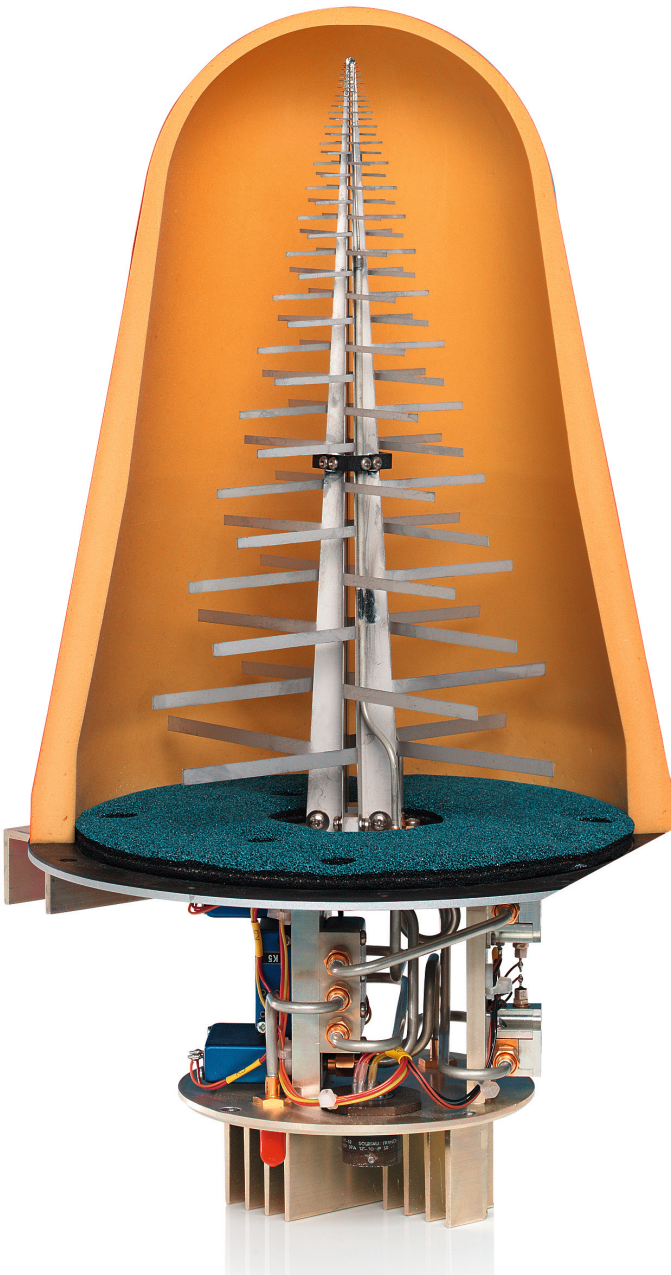
Two RF connectors are provided for simultaneous use of both polarization planes.

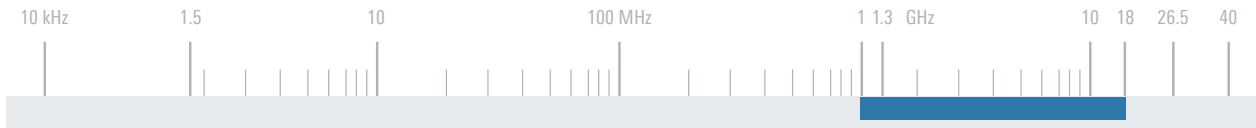
The preamplifiers can be optionally switched on. They prevent a significant reduction in S/N due to loss in RF cables connecting the antenna to a receiver.

The antenna can also be used as a feed for the R&S®AC008 microwave directional antenna.

Key facts

- ▮ Wide frequency range
- ▮ Selectable broadband preamplifiers
- ▮ Simultaneous reception of both polarization planes
- ▮ No reduction in S/N due to the use of low-noise amplifiers at the antenna outputs
- ▮ Usable as a feed for R&S®AC008 microwave directional antenna





Specifications

| | |
|-------------------------|--|
| Frequency range | 1 GHz to 18 GHz |
| Polarization | horizontal and vertical (simultaneously) |
| Input impedance | 50 Ω |
| VSWR | < 3 |
| Antenna gain (passive) | typ. 6 dBi |
| Noise figure | max. 3.6 dB |
| Practical gain (active) | typ. 36 dB |
| 1 dB compression point | min. +5 dBm |

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|---------------------------------|--|
| Power supply | +15 V DC (max. 0.7 A) (preamplifier), +12 V DC (max. 1 A) (switching network) |
| Connector | 2 × SMA female |
| Control connector | 10-contact, round, male |
| MTBF | > 55 000 h |
| Operating temperature range | −30°C to +55°C |
| Dimensions (Ø × H; with radome) | 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. |
|-------------------------------|-------------|--------------|
| Crossed Log-Periodic Antenna | R&S®HL024S8 | 4042.7509.02 |
| 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 |

Typical radiation patterns

