SHF Antennas

Dual-Polarized Reflector Antenna R&S®AC 025DP



18 GHz to 40 GHz

Broadband microwave reflector antenna
with preamplifier



Features

- Extremely wide frequency range
- Simultaneous reception of two orthogonal polarization planes
- ◆ Can be integrated into the SHF Directional Antenna Systems R&S®AC 090/120/180/300
- ◆ Fast and simple installation
- Sturdy mechanical design

Brief description

The Dual-Polarized Reflector Antenna R&S®AC 025DP has been optimized for use in the range 18 GHz to 40 GHz.

For independent operation, the antenna is installed on a tripod or, for frequency range extension, it can be combined with the steerable SHF Directional Antenna Systems R&S®AC 090/120/180/300.

The antenna is equipped with an integrated preamplifier for optimal signal processing.

Specifications

Antenna	
Frequency range	18 GHz to 40 GHz
Polarization	$2 \times$ linear (orthogonal relative to each other)
Input impedance	50 Ω
VSWR (with preamplifier)	<3.0 (typ. <2.5)
Gain	26 dBi to 32 dBi
Half-power beamwidth	4.5° to 2° (typ.)
Reflector diameter	250 mm
Connector	2 × K female

Preamplifier (typical values)		
Gain	typ. >30 dB	
1 dB compression point	typ. >8 dBm	
Noise figure	typ. <5 dB	
Power consumption	15 V/0.5 A (max.)	
MTBF	>50 000 h	
Operating		
temperature range	−30 °C to +55 °C	
Dimensions		
(diameter × length)	approx. 320 mm × 340 mm	
Weight	approx. 5 kg	

Ordering information

Dual-Polarized		
Reflector Antenna	R&S®AC 025DP	4062.5830.02

Recommended extras		
Power Supply	R&S®IN 308	4059.6752.02
Adapter for		
Tripod R&S®HZ-1	R&S®KA308R2	4057.8606.00
Tripod	R&S®HZ-1	0837.2310.02

Co-Polar

Cross-Polar

Frequency:

Plane:

HPBW:

Gain:

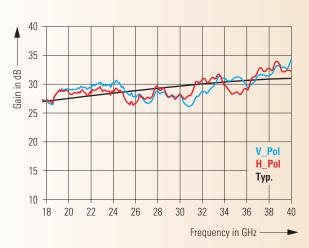
33 GHz

Polarization: horizontal

E

2.6°

31 dBi



-40 -30 -25 -20 -15 -10 5 10 15 Angle in deg 0 Frequency: 33 GHz Polarization: vertical Co-Polar -5 Plane: Ε -10 HPBW: 2.4° -15 29.5 dBi Gain: -20 -25 -30 -35 -40 -30 -25 -20 -15 -10 10 15 Angle in deg

Typical gain

Typical radiation pattern

0

-5

-10

-10 Wb | -15 -20 -30

-30 -35