

Band IV/V (UHF) Dipole Arrays 470-790MHz

Product Description

The UD wideband series of vertically polarized antennas are ideal for low power UHF TV transposer applications as well as higher power applications. These dipole antennas are designed for broadband operation.

Construction is of aluminium and the antenna is housed within a fibreglass radome that has been designed to survive wind speeds of 240 km/h (150mph) to AS1170.2: 2011. A range of dipole arrays with 2, 4, 8 and 16 elements are designed for various gain requirements.

Dual inputs are standard on high power models and custom VRPs are available as options. Contact RFS for specifics.



Typical 8UD Antenna

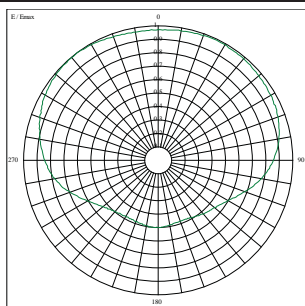
Features/Benefits

- Broadband design for Digital TV, multi-channel use
- Designed for maximum reliability
- Vertically polarized
- Operation: Pressurized or unpressurized
- Low wind loading
- Specific designs for higher wind speeds on request
- Dual input models, co-phased or quadrature fed

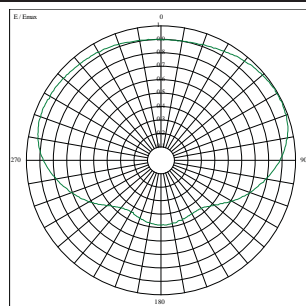
Specifications	2UD	4UD	4UD-HP	8UD-HP	8UD-2HP	16UD-HP
Frequency Range, MHz	470-790					
Polarization	Vertical					
Number of Channels	Multi-channel					
Nominal Gain (Mid-band), dBd	5	8	8	11	11	14
Azimuth Radiation Pattern	Directional					
Beam Tilt °	14	6.4	6.4	3.2	3.2	1.6
Null Fill (minimum)	—	1st Null 10% E/Emax	—	1st Null 10% E/Emax, 2nd Null 5% E/Emax		
Return Loss, dB	>20 (470-790MHz)					
Input Connector, DIN/EIA	7-16	7-16	2 x 7/8" 1 x 1-5/8"	2 x 1-5/8"	2 x 1-5/8" 2 x (2 x 7/8")	2 x 1-5/8"
Max. Input Power @ 665MHz, kW	1	1	2 x 2.5 5	2 x 5	2 x 5 2 x (2 x 2.5)	2 x 5
Impedance, ohms	50 unbalanced					
Weight (approx), kg	40	75	80	130	460	460
Radome Outer Diameter, mm	323	323	323	323	425	425
Radome Flange	Yes	Yes	Yes	Yes	No	No
Dimensions, (for packing*) cm (*Height or Length, incl lightning rod and power divider)	122	280	280	462	1229	1229
Effective Area (front, side, rear - full antenna), sq m	0.4	0.65	0.65	1.0	3.6	3.6
Wind Load @ 50 m/sec (front, side), kN	0.6	1.0	1.0	1.5	5.5	5.5
Pressurization Operational, kPa (psi)	—			10-25 (1.5-3.6)	PD Network pressurised only	
Radome Colour	White					
Material - Radome	Fibreglass					
Material - Mounting Plate	—			Galvanised Steel	No Plate	No Plate

Note: Estimated wind load data are based on AS1170.2: 2011

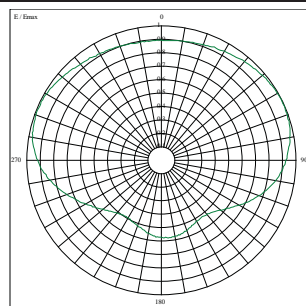
Patterns (4UD model shown. Contact RFS for others)



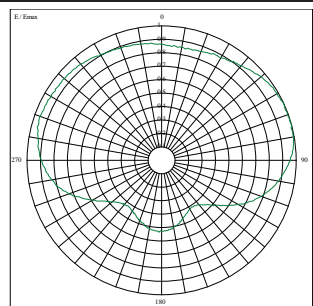
Azimuth Radiation Pattern 498 MHz



Azimuth Radiation Pattern 570 MHz



Azimuth Radiation Pattern 634 MHz



Azimuth Radiation Pattern 698 MHz

All information contained in the present brochure is subject to confirmation at time of ordering