Model 1138 1.2m QD Quick Deploy Antenna

Quick Deploy Antennas

VertexRSI™
ISO 9001 Registered

Description

The VertexRSI lightweight 1.2-meter Quick Deploy antennas are designed for worldwide transmit and receive operation in C, X, Ku and Ka-band. These portable antennas consist of Precision Compression Molded reflectors and a compact aluminum pedestal. This results in a durable antenna with superior stiffness and high performance under wind loading conditions.

The unique shape and the accurate reflector surface provide good sidelobe and cross-polarization performance. The antenna system is a Series 1138 and the reflector consists of a two-segment SMC compression molded assembly. Repeatability is maintained with precision registration of the reflector segments and the feed support structure.

The 1.2-meter antenna, including the feed, is packaged in three portable cases.

Features

- Precision compression molded offset reflector
- Compact galvanized steel pedestal
- Transport cases included
- Two-person assembly in less than 5 minutes
- Captive hardware/fasteners
- No tools required
- Quick adjust positioner

Options

- Paint/finishes
- Case upgrades
- Multiple feeds -- C, X, Ku and Ka-band

The Strength to Perform

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Technical Specifications

Electrical*	C-Band 2-Port Linear Polarized		C-Band 2-Port Circular Polarized		X-Band 2-Port Circular Polarized		Ku-Band 2-Port Linear Polarized	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	3.625 - 4.200	5.850 - 6.425	3.625 - 4.200	5.850 - 6.425	7.250 - 7.750	7.900 - 8.400	10.950-12.750	13.750 - 14.500
Antenna Gain at Midband, dBi	32.1	35.8	32.0	35.8	37.6	38.3	41.6	43.2
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
Pattern Beamwidth (in degrees at midband)								
-3 dB	4.21	2.75	4.21	2.75	2.20	2.03	1.36	1.15
-15 dB	8.84	5.78	8.84	5.78	4.62	4.26	2.86	2.41
Sidelobe Performance	IESS 601 STD G		IESS 601 STD G		IESS 601 STD G		IESS 601 STD G	
Antenna Noise Temperature								
5° Elevation	61 K		73 K		69 K		71 K	
10° Elevation	43 K		55 K		56 K		56 K	
20° Elevation	37 K		50 K		51 K		49 K	
40° Elevation	39 K		51 K		52 K		48 K	
Power Handling		2 kW CW		1 kW CW		1 kW CW		2 kW CW
Cross Polarization Isolation								
On Axis	30.0 dB	30.0 dB	17.6 dB	19.1 dB	21.3 dB	21.3 dB	30.0 dB	30.0 dB
Within 1.0 dB Beamwidth	26.0 dB	26.0 dB	17.6 dB	19.1 dB	21.3 dB	21.3 dB	27.0 dB	27.0 dB
Output Waveguide Interface Flange	CPR-229G	CPR-137G	CPR-229G	CPR-137G	CPR-112G	CPR-112G	WR-75 Flat	WR-75 Flat
RF Specification	975-3072		975-3542		975-3514		975-3078	

Mechanical	
Reflector Material	Two-piece SMC compression molded
Antenna Optics	Prime focus, offset feed, 0.8 F/D ratio
Mount Type	Quick erect tripod with elevation over azimuth canister
Elevation Adjustment Range	0° to 90°
Azimuth Adjustment Range	±30° above 15° elevation look angle (±10° @ 0° elevation)
Shipping Specifications**	Size (L x W x H) Weight
Two-Piece Reflector Case (ATA)	53" x 16" x 31" (135 x 41 x 79 cm) 105 lbs (48 kg)
Pedestal Case (ATA)	36" x 20" x 21" (91 x 51 x 53 cm) 76 lbs (34 kg)
All Cases on Skid (feed packed separately)	56" x 58" x 36" (142 x 147 x 91 cm) 220 lbs (100 kg)
Feed Case	Consult factory for options and dimensions
Net Weight of Antenna (including Ku-band feed)	100 lbs (45 kg)

Environmental	
Wind Loading	
Operational	17 mph (27 km/h), no ballast or anchors
	45 mph (72 km/h) gusting to 58 mph (93 km/h), with ballast or anchors
Survival	120 mph (193 km/h), with ballast or anchors and reflector removed; remove reflector above 58 mph (93 km/h)
Temperature Range (operational)	-40° to +140° F (-40° to +60° C)
Rain (operational)	1/2 in/h (12 mm/h)
Ice (operational)	1/2 in (12 mm)
Atmospheric Conditions	Salt, pollutants and contaminants as encountered in coastal and industrial areas
Relative Humidity	0% to 100%
Solar Radiation	360 BTU/h/ft² (1000 Kcal/h/m²)

* Consult factory for Ka-band option.

** Ruggedized aluminum and/or Hardigg cases available as an option.

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