



**UD Wideband Cardioid Antennas**

UHF Cardioid Arrays

UD WB Series (Band IV/V)

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 aluminum and the antenna is housed within a fiberglass radome that has been designed to survive wind speeds of 240 km/h (150mph) to AS1170.2:2011. A range of dipole arrays, 4, 8, 12 and 16 bay, are designed for various gain requirements.

Dual inputs are standard on high power models and custom VRPs are available as options. Refer to external document attachments for detailed specifications. Contact RFS for more information.

**FEATURES / BENEFITS**

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



4UD-HP Cardioid Antenna under test

**Technical features**

**STRUCTURE**

<b>Product Line</b>		Antenna TV
<b>Product Type</b>		Band IV/V (UHF) Cardioid Antennas

**ELECTRICAL SPECIFICATIONS**

<b>Frequency Range</b>	MHz	470 - 790
<b>Polarization</b>		Vertical
<b>Azimuth Radiation Pattern</b>		Directional
<b>Return Loss</b>	dB	> 20 (470-790 MHz)
<b>Impedance (unbalanced)</b>	$\Omega$	50

**MECHANICAL SPECIFICATIONS**

<b>Number of Channels</b>		Multi-channel
<b>Mounting (Standard)</b>	mm (in)	Flange base on 323mm radome

**MATERIAL**

<b>Material - Radome</b>		Fibreglass
<b>Colour</b>		White



# UD Wideband Cardioid Antennas

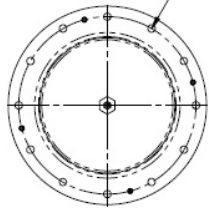
UHF Cardioid Arrays

UD WB Series (Band IV/V)

**NOTES:**

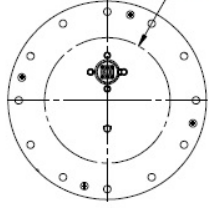
: ENGRAVED 'F' ON RADOME DESIGNATES FRONT OF ANTENNA AND 0 DEGREES ON RADIATION PATTERN

12 HOLES  $\phi 18$   
EQUI SPACED @  $30^\circ$   
ON A  $\phi 438$  PCD

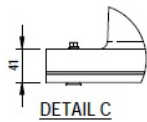


VIEW A

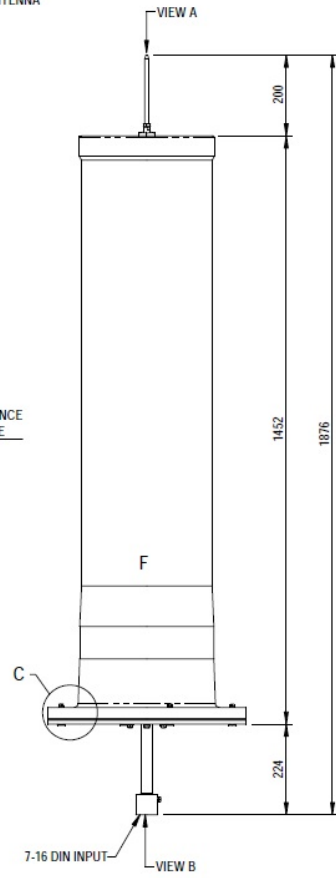
ALLOW FOR  $\phi 310$  CLEARANCE  
HOLE IN TOWER INTERFACE



VIEW B



DETAIL C



MAX POWER RATING @ 720 MHz: 1 kW  
PEEK VOLTAGE RATING: 1.8 kV

2UD Views



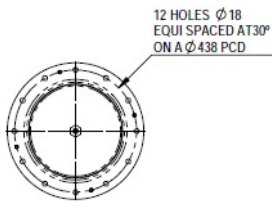
# UD Wideband Cardioid Antennas

UHF Cardioid Arrays

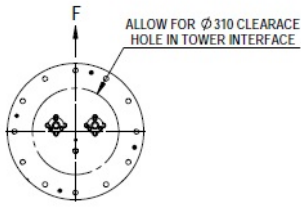
UD WB Series (Band IV/V)

**NOTES:**

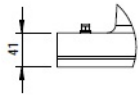
ENGRAVED 'F' ON RADOME DESIGNATES FRONT OF ANTENNA AND 0 DEGREES ON RADIATION PATTERN



VIEW A

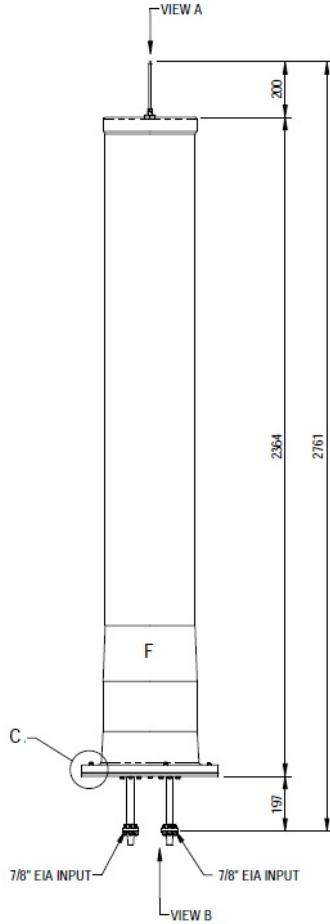


VIEW B



DETAIL C

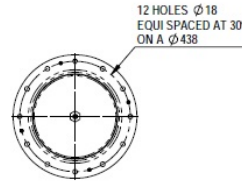
WIND LOAD @50m/s: 1.5 kN to BS6399.2  
MAX POWER RATING @ 600 MHz: 2 x 2.5 kW  
PEEK VOLTAGE RATING: 2.5 kV



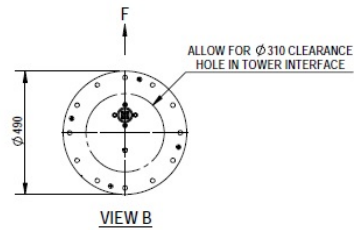
4UD-HP Views

**NOTES:**

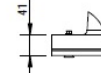
ENGRAVED 'F' ON RADOME DESIGNATES FRONT OF ANTENNA AND 0 DEGREES ON RADIATION PATTERN



VIEW A

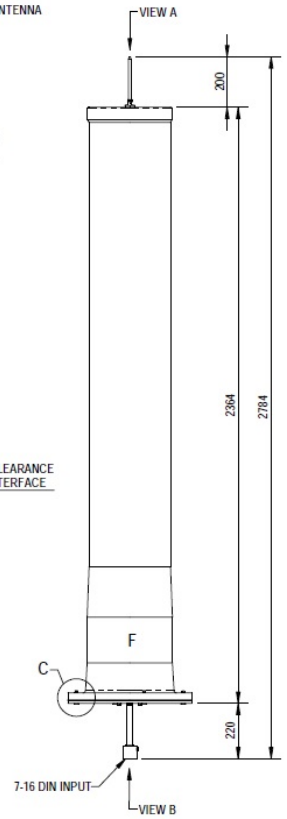


VIEW B



DETAIL C

WIND LOAD @50m/s: 1.5 kN to BS6399.2  
MAX POWER RATING @ 600 MHz: 1.05 kW  
PEAK VOLTAGE RATING: 1.8 kV



4UD Views

External Document Links

[UD WB antenna specifications](#)

Notes