



This series of panel antennas are ideal for four-sided array design to provide customized coverage for single or multistation use in Band III. Model 655 has a nominal gain of 8 dBd and can be used for horizontally polarized services. Model 656 is horizontally polarized and provides a nominal gain of 11dBd.

Construction from a thick-walled tube and solid steel bar gives a heavy-duty panel which is designed for operation in very harsh environments. This design also ensures ideal hot-dip galvanizing for optimum corrosion protection. Colours are available for aviation visibility and even further corrosion protection.

The coaxial feed system can be fully pressurized and features twin "O" ring seals on the feed point insulators. The panels are tolerant of light icing (radomes are available for use under heavy icing conditions down to -40 degrees C) and have a very low VSWR (typically less than 1.05:1) over the entire 174 - 230MHz band depending on the system configuration.

These panels are ideal array elements having low sidelobes, low mutual couplings between panels and high power ratings across the full band. This results in complete antenna systems that have very wide VSWR and pattern bandwidth.

The ability to utilize larger tower cross-sections allows support for a top-mounted UHF antenna such as the PHP or PVP UHF antenna arrays. This provides a powerful combination for delivering DTV and/or DAB systems customized to suit the coverage requirements of the customer.

**FEATURES / BENEFITS**

- Cyclone rated
- Rugged galvanized steel construction for maximum corrosion protection
- Stainless steel version available on request
- Low wind load
- Pressurizable coaxial feed
- Four sided array design
- Low VSWR full band operation
- Suitable for multistation use, DAB and DTV
- High power rating
- Ideal array element allowing for a variety of horizontal radiation patterns to suit most requirements, contact RFS for details
- Medium power, unpressurised version available
- Temperature range -40 to +60 degrees C available
- For detailed technical information use the external document link below.



655 and 656 Antenna Series showing 656 Panel Array

**Technical features**

**STRUCTURE**

<b>Product Line</b>		Antenna TV
<b>Product Type</b>		Band III (High VHF) TV 655 Panel Arrays

**ELECTRICAL SPECIFICATIONS**

<b>Frequency Range</b>	MHz	174 - 230
<b>Polarization</b>		Horizontal
<b>Nominal Gain (Mid-band)</b>	dBd	8
<b>Half Power Beamwidth Azimuth</b>	degrees	66
<b>Return Loss</b>	dB	26
<b>Power Rating</b>	kW	3 (7-16 DIN) 4 (7/8" EIA)
<b>Impedance (unbalanced)</b>	Ω	50

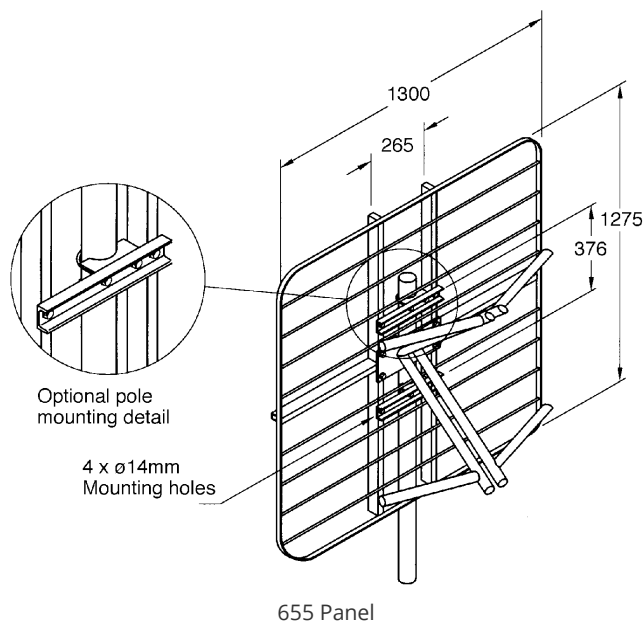
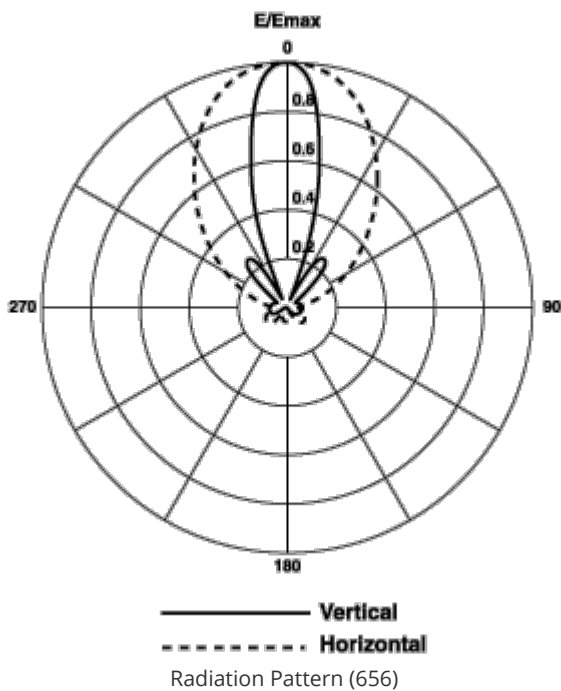


**MECHANICAL SPECIFICATIONS**

Number of Channels		Multi-channel
Input Connector		7-16 DIN 7/8" EIA Flange
Mounting (Standard)	mm (in)	4 x 12mm (4 x 1/2") bolts
Effective Area Front (full antenna) No Ice	m <sup>2</sup> (ft <sup>2</sup> )	0.41 (4.45)
Effective Area Side (full antenna) No Ice	m <sup>2</sup> (ft <sup>2</sup> )	0.53 (5.69)
Design Wind Speed	km/h (mph)	240 (150)
Pressurization Operational	kPa (psi)	10 - 25 (1.5 - 3.6) 7/8" EIA Version
Pressurization Test	kPa (psi)	100 (15) 7/8" EIA Version
Weight	kg (lb)	35 (77)

**MATERIAL**

Material - Insulators		PTFE
Material - Radiators		Hot Dipped Galvanised steel
Material - Reflecting Screen		Hot Dipped Galvanised steel



External Document Links  
[655 Array Application Guide](#)

**Notes**

**Note 1** Power rating is limited by the input connector type. 3.0kW for 7-16 DIN, 4kW for 7/8" EIA