



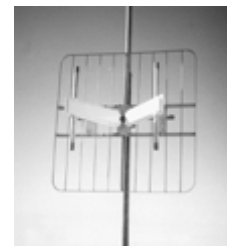
This series of panel antennas are ideal for four-sided array design to provide customized coverage for vertically polarized use in Band III. Model 659 has a nominal gain of 8dBd and the model 660 has a nominal gain of 11dBd.

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.

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 our 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.



659 and 660 Series Antennas showing 659 Panel

**FEATURES / BENEFITS**

- Suitable for multi station use, DAB and DTV
- Vertical polarization
- Cyclone rated
- Rugged galvanized steel construction for maximum corrosion protection
- Low wind load
- Pressurizable coaxial feed
- Low VSWR full band operation
- Ideal array element allowing for a number of standard horizontal radiation patterns as well as customized patterns. Contact RFS for details
- Medium power, unpressurized version available
- Temperature range -40 to +60 degrees C available.

**Technical features**

**STRUCTURE**

<b>Product Line</b>		Antenna TV
<b>Product Type</b>		Band III (High VHF) TV/DAB 660 Panel Arrays

**ELECTRICAL SPECIFICATIONS**

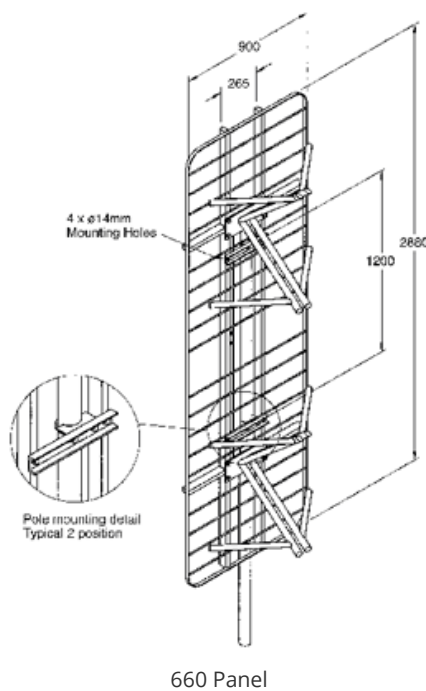
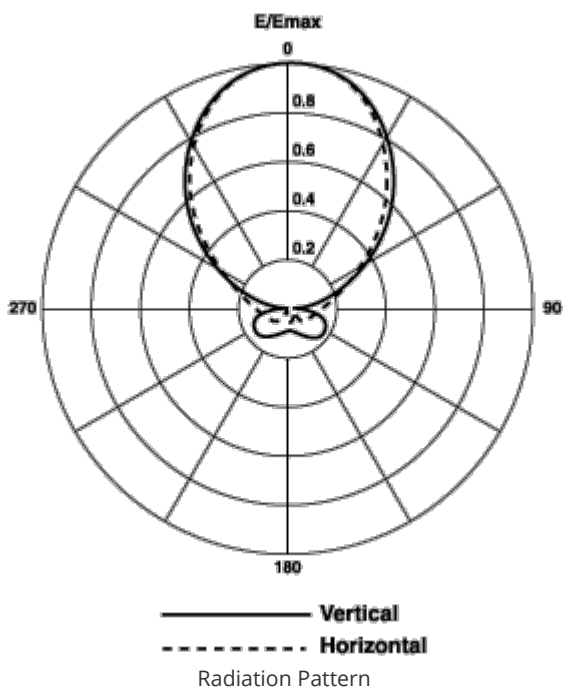
<b>Frequency Range</b>	MHz	174 - 240
<b>Polarization</b>		Vertical
<b>Nominal Gain (Mid-band)</b>	dBd	11
<b>Half Power Beamwidth Azimuth</b>	degrees	64
<b>Return Loss</b>	dB	26
<b>Power Rating</b>	kW	3 4
<b>Impedance (unbalanced)</b>	Ω	50

**MECHANICAL SPECIFICATIONS**

Number of Channels		Multichannel
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> )	0.80 (8.61)
Effective Area Side (full antenna) No Ice	m <sup>2</sup> (ft <sup>2</sup> )	1.10 (11.83)
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)	80 (177)

**MATERIAL**

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



External Document Links

**Notes**

**Note 1** Power rating is limited by the input connector type. 3kW for 7-16 DIN, 4kW for 7/8" EIA