



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

Product Line		Antenna TV
Product Type		Band III (High VHF) TV 656 Panel Arrays

ELECTRICAL SPECIFICATIONS

Frequency Range	MHz	174 - 230
Polarization		Horizontal
Nominal Gain (Mid-band)	dBd	11
Half Power Beamwidth Azimuth	degrees	66
Return Loss	dB	26
Power Rating	kW	3 4
Impedance (unbalanced)	Ω	50

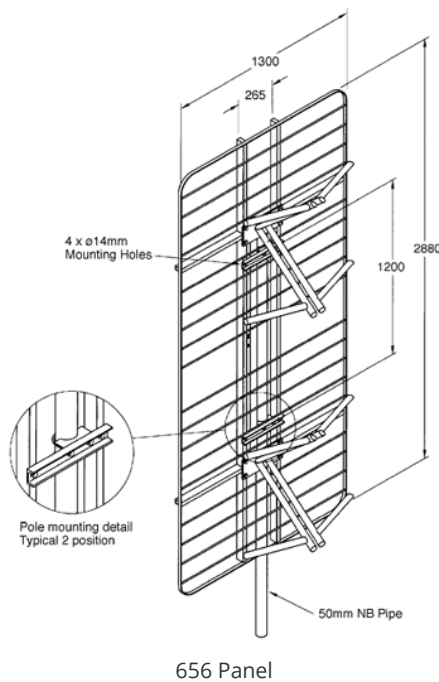
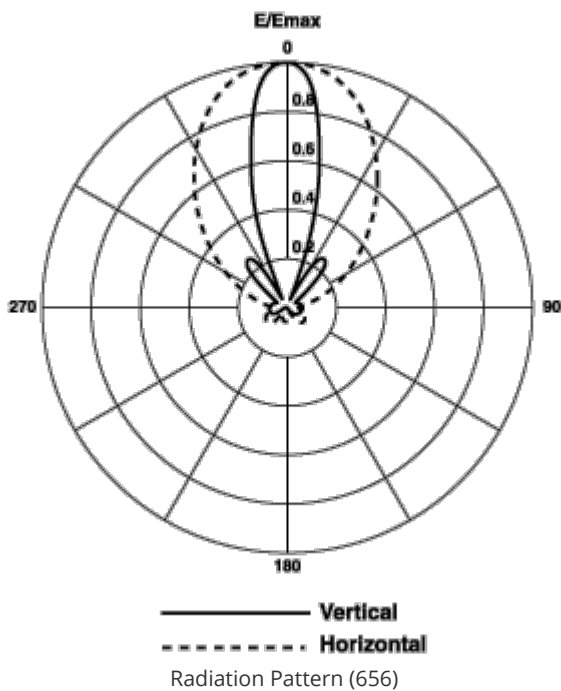


MECHANICAL SPECIFICATIONS

Number of Channels		Multichannel
Input Connector		7-16 DIN 7/8" EIA
Mounting (Standard)	mm (in)	4 x 12mm (4 x 1/2") bolts
Effective Area Front (full antenna) No Ice	m ² (ft ²)	0.83 (8.90)
Effective Area Side (full antenna) No Ice	m ² (ft ²)	1.06 (11.38)
Design Wind Speed (max)	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 Note#2
Material - Reflecting Screen		Hot Dipped Galvanised steel Note#2



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

Notes

Note1 Power rating is limited by the input connector type. 3.0kW for 7-16 DIN, 4kW for 7/8" EIA

Note2 Stainless steel version available on request