

**174-230MHz TV Panel Arrays 655, 656 Series**
**Product Description**

This series of panel antennas is ideal for four sided array design to provide a 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 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.



656 Panel

**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.

**Technical Specifications**

Product Line	Antenna TV
Product Type	Band III (High VHF) TV Panel Arrays
Frequency Range, MHz	174 - 230
Polarization	Horizontal
Number of Channels	Multichannel
Nominal Gain (Mid-band), dBd	8
Half Power Beamwidth Azimuth, degrees	66
Return Loss, dB	26
Input Connector	7-16 DIN; 7/8" EIA Flange
Power Rating, kW	3; 4 Note#1
Impedance, ohms	50 unbalanced
Weight, kg (lb)	35 (77)
Mounting (Standard), mm (in)	4 x 12mm (1/2) bolts
Effective Area Front (full antenna), sq m (sq ft)	0.41 (4.45)
Effective Area Side (full antenna), sq m (sq ft)	0.53 (5.69)
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
Material - Insulators	PTFE
Material - Radiators	Hot Dipped Galvanised steel
Material - Reflecting Screen	Hot Dipped Galvanised steel

**Notes**
**RFS The Clear Choice ®**
**655**

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Radio Frequency Systems

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

## Other Documentation

655 Array Application Guide: [655 array application guide.pdf](#)

