

174-240MHz Sidemount DAB/TV Dipoles 618 Series
Product Description

These vertically polarized antennas for TV and DAB broadcasting applications are intended for use where low wind loadings are required. They are designed to be sidemounted to a tower leg or pole and optional mounting brackets are available for this purpose.

The 618 series are fabricated from stainless steel and will handle up to 4kW input power per bay for standard models. Beam tilt and null fill can be provided on request.

Radomes are available for the 618 series if required.

Multiple element arrays are supplied as a complete package including power dividers and distribution cables. An optional input tuner ensures optimum VSWR performance after installation as it enables the effects of tower steelwork to be eliminated.

The 618 series can be arrayed with up to 6 or more bays as required.

Horizontal radiation patterns can be modified on the RFS antenna test range if required, by adjusting the spacing between the antenna and tower.


Features/Benefits

- Rugged construction for maximum corrosion protection
- Broadband operation
- Multichannel use if required
- Optional pressurization
- Low windload to minimize tower or mast costs
- Vertical polarization
- Temperature range -40 to +60 degrees C available

Technical Specifications

Product Line	Antenna TV/DAB
Product Type	Band III (High VHF) TV/DAB Panel Arrays
Frequency Range, MHz	174 - 240
Polarization	Vertical
Nominal Gain (Mid-band), dBd	0
Azimuth Radiation Pattern	Omnidirectional + 3 dB (Note#1)
Return Loss, dB	Typically 20 over 50MHz, 30 single channel, field tunable
Input Connector	7-16 DIN ; 7/8" EIA Flange
Power Rating, kW	4
Impedance, ohms	50 unbalanced
Weight, kg (lb)	8 (18)
Dimensions (Height or Length), cm (in)	69.5 (27.4) typical
Dimensions (Width), cm (in)	6 (2.4)
Dimensions (Depth), cm (in)	100.8 (39.7)
Mounting (Standard), mm (in)	Clamping Dia. 43 - 76mm (1.7 - 3)
Effective Area Front (full antenna), sq m (sq ft)	Ant 0.11 (1.18) Note #3
Effective Area Power Divider, sq m (sq ft)	- Note#3
Wind Load @ 50 m/sec Front, kN (lb)	0.13 (30) Note#5
Pressurization Operational, kPa (psi)	10 - 25 (1.5 - 3.6)
Pressurization Test, kPa (psi)	100 (15)

Notes

Note 1 When antenna is mounted on a mast/tower with a face width of less than 150mm.

Note 2 Input power is limited to 5 kW maximum if a 7/8" connector is used.

Note 3 Connecting cables are not included in calculations - 0.03 metres squared per metre length should be allowed.

Note 4 Power divider included and considered adjacent to antennas.

Note 5 Calculated in accordance with AS1170-1989, Part 2: "SAA Loading Code - Wind Forces".



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Other Documentation

