

Antenna UHF TV 470 - 860MHz

Broadband Panel, H72 Horizontal Polarisation



Product Description

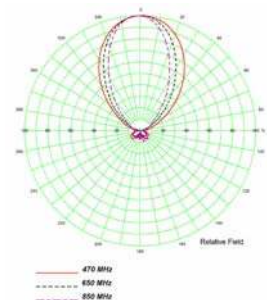
The antenna panel is designed for multi-channel digital and analogue TV broadcast. Its high power rating, voltage rating and full UHF TV bandwidth makes it the ideal basis for a multitude of custom and conventional antenna arrays. Input flanges with various international standards are available. An optional input current monitoring probe may be incorporated.

The horizontally polarised unit is ruggedly constructed for at least a 25 year operational life. There are presently many hundreds of units in service widely distributed throughout the world. Fibreglass radomes, constructed from custom specified coloured resin, give all round environmental protection. The panel, with a 72 degree horizontal beam, gives good omni directional performance in a five around configuration. It is intended to be spaced vertically on 1 to 1.1m centres to build high gain arrays up to 32 wavelengths aperture.

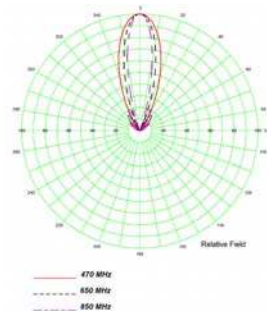


Panel Specification				
Frequency Range	470-860MHz			
Polarisation	Horizontal			
Power Rating - according to input connector	470MHz	650MHz	860MHz	
	1 5/8" EIA	6.5kW	5.5kW	4.8kW
	7/8" EIA	2.5kW	2.1kW	1.8kW
	7.16 DIN	1.7kW	1.4kW	1.3kW
Voltage Rating	470MHz	650MHz	860MHz	
	1 5/8" EIA	3.4kW	3.4kW	3.4kW
	7/8" EIA	2.5kW	2.5kW	2.5kW
	7.16 DIN	2.0kW	2.0kW	2.0kW
Input Impedance	50 ohms			
Input VSWR	1.1:1			
Panel Gain	470MHz	650MHz	860MHz	
		11dB	13dB	14.7dB
Lightning Protection	DC Grounded			
Construction	Passivated Aluminium Screen Brass Radiating Elements, Copper Inner Conductors			
Ice Protection	GRP Radome			
Weight		(kg)	12	
Aerodynamic Area	Front	(m sq.)	0.50	
	Side	(m sq.)	0.16	
Dimensions		(mm)	994 x 508 x 173	

Horizontal Radiation Patterns



Vertical Radiation Patterns



In pursuance of continual product improvement, AlanDick reserve the right to change specifications without prior notice

Edition No: 1-08

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Communication Infrastructure Solutions

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General Array Information

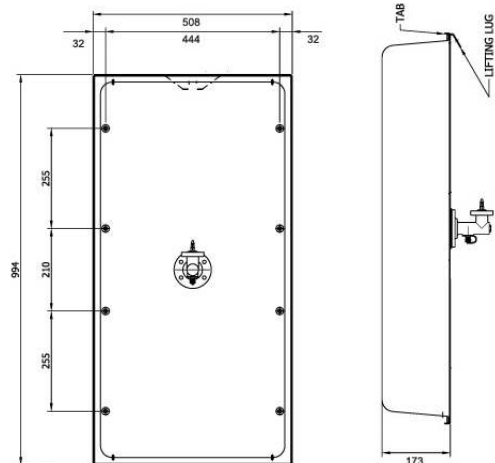
The H-72 UHF panel, complemented by the fine performance of our wide selection of feed harness components, makes it an ideal choice for use in high power multi-channel arrays. This versatile panel is suited to five around top mount or side mount systems and large cross section multi panel wrap around arrays.

Without any pattern degradation, five panels per tier gives 70% additional internal area compared to the equivalent square array. This provides space for more, higher power harness components whilst also providing good internal climbing access. Internal ladders are provided; optional external ladders may be added.

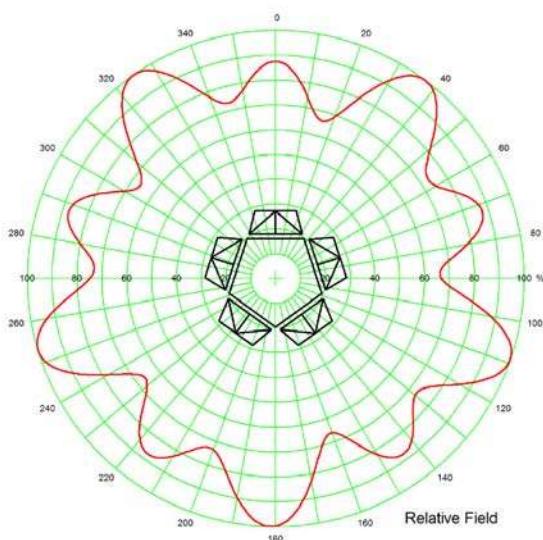
Pentagonal steel spines or large cross-section structural steel tubes are available to support up to 20 tiers of panels. This may be cantilevered at the tower top or be incorporated into the mast with guy wire supports. AlanDick design and supply suitable interfaces to fit existing structures.

Optional fibreglass infill sectors may be added between panels to improve the aerodynamic loading, providing a considerable reduction in tower loading. A typical horizontal and vertical radiation pattern for a 10 tier, 5 around array are shown below.

Antenna Panel Plan (mm)

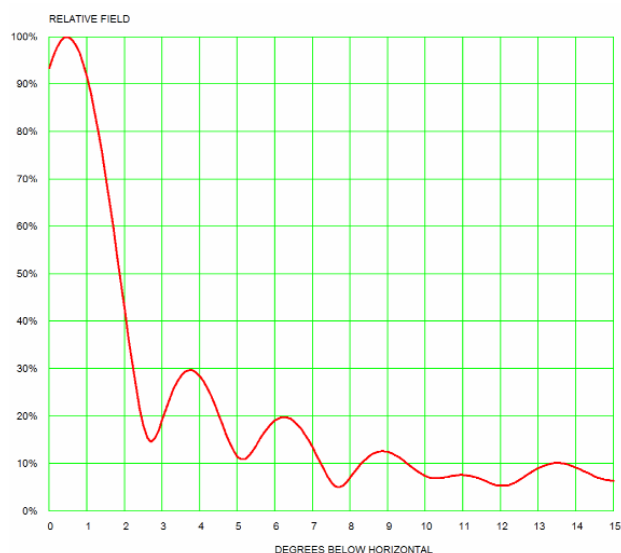


Horizontal Radiation Pattern



Typical Omni-directional Array

Vertical Radiation Pattern



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