Model : PUHF1

- **Bandwidth 470 ÷ 860 MHz**
- **TV antenna**
- **4 dipoles antenna with panel reflector and protection radome**
- **Suitable for directional, semi-directional or omnidirectional UHF stacked-array systems**
- **Directional antenna**

ELECTRICAL DATA

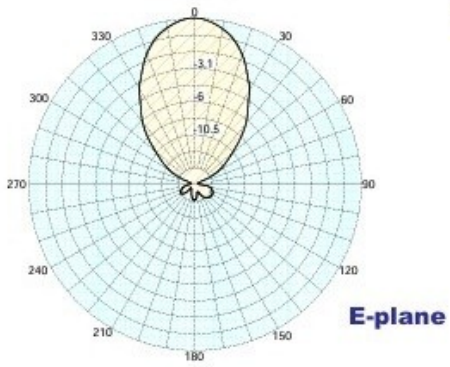
Frequency range	470 ÷ 860 MHz
Impedance	50 Ohm
Connectors	7/16” female input connector (7/8” EIA on request)
Max Power	1000W - 7/16” 2500W with 7/8” flange
VSWR	≤ 1.12:1
Polarization	Horizontal
Gain	9.55 dBd (11.7 dBi) - (470 MHz) 11.0 dBd (13.2 dBi) - (630 MHz) 12.0 dBd (14.1 dBi) - (860 MHz)
Half power beam width	E plane ± 60° at –3dB H plane ± 25° at –3dB
Lightning protection	DC grounded dipoles

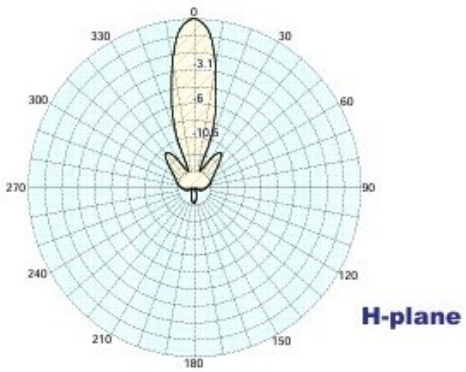
MECHANICAL DATA

Dimensions	1000x450x270 mm (HxLxW) 1070x530x360 mm (Packing size)
Weight	14 Kg (17 Kg including packing)
Wind surface	0.45 m^2 (front) 0.25 m^2 (side)
Wind load	89 Kg (wind speed at 160 km/h)*
Max wind velocity	200 km/h*
Materials	Panel reflector and bolts: stainless steel Lines and Dipole: silver-plated copper and brass Silicone – O-rings – Teflon insulator Radome: fiberglass
Icing protection	Fiberglass radome
Radome color	White
Mounting	4 holes threated M8 at 980x85 mm spacing, or throught tiltable or fix mounting brackets for poles (optionals)

* Antenna wind load is calculated for 100 Mph (160 Km/h) per EIA-222-F standard

RADIATION PATTERN (MID BAND)





- **Radiations systems with PUHF1 antenna**
- **Omnidirectional or directional pattern**
- **Balanced or unbalanced splitting power**

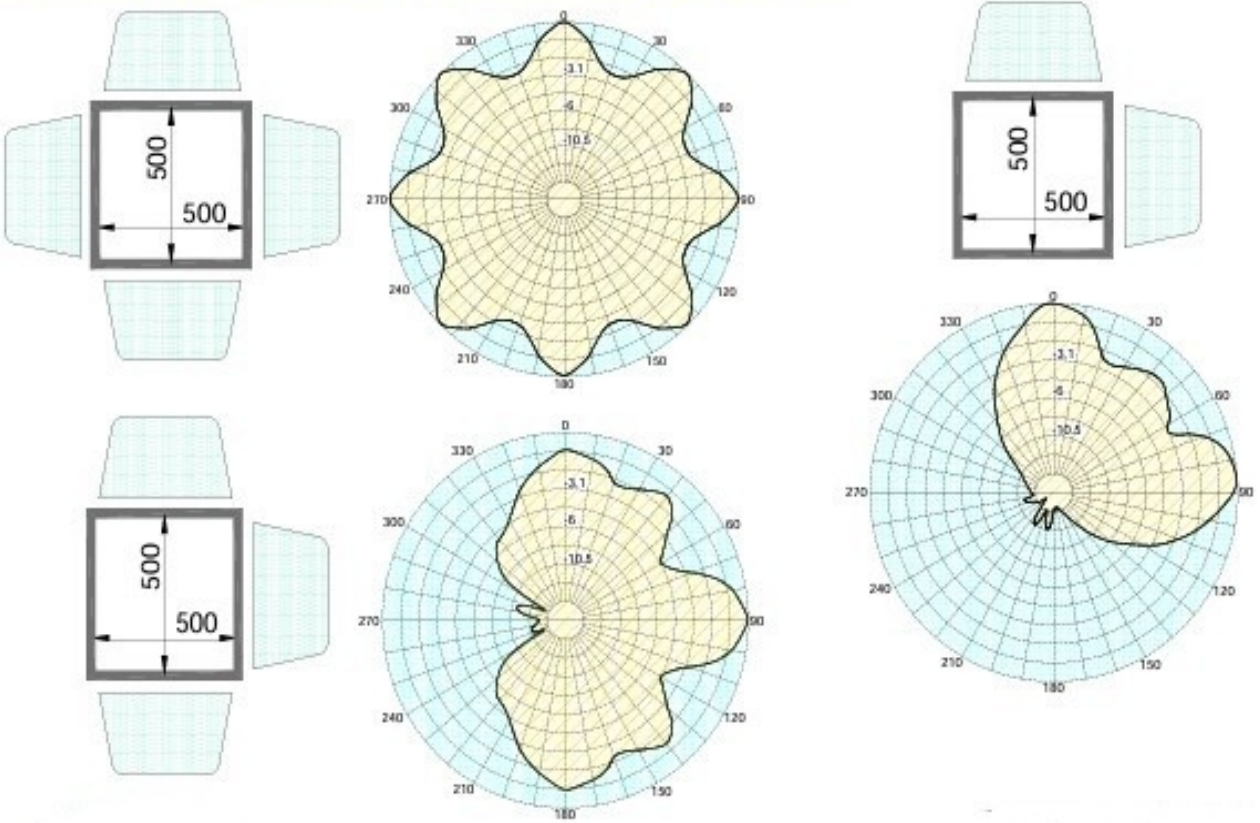
ELECTRICAL DATA

Frequency range	470 ÷ 860 MHz
Impedance	50 Ohm
Connector	7/16" female input connector (N female or 7/8" EIA on request)
VSWR	≤ 1.12:1 Max
Polarization	Horizontal
Gain	Refer to table
Horizontal pattern	Directional, omni-directional or customer designed
Other facilities	The antenna system can be supplied in split feed with two equal half antennas. Each half can accept full power

MECHANICAL DATA

Height of array	Subject to number of bays (refer to table)
Total net weight	Refer to table
Wind load	Refer to table
Radome color	White
Mounting hardware	4 holes threated M8 at 980x85 mm spacing, or throught tiltable or fix mounting brackets for poles (optionals)
Shipping	As required

Horizontal Patterns with 2, 3 and 4 faces at Mid Band



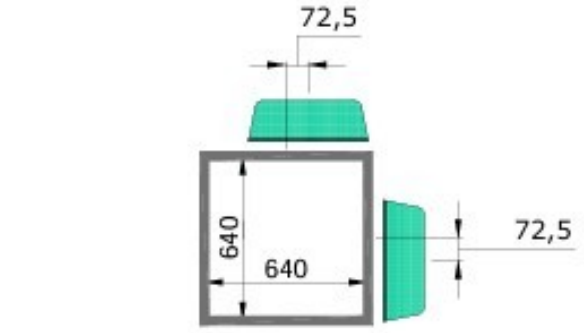
TECHNICAL DATA

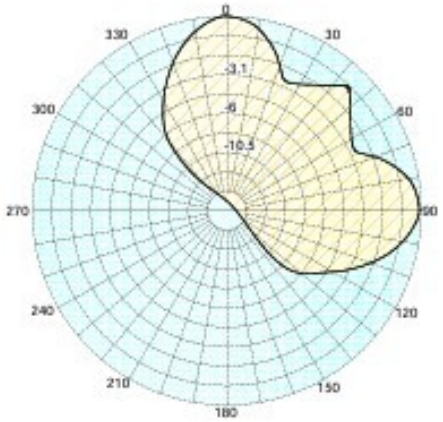
Number of bays	Panels per bay	Gain[1] 470 MHz dB	Gain[1] 470 MHz times	Gain[1] 630 MHz dB	Gain[1] 630 MHz times	Gain[1] 860 MHz dB	Gain[1] 860 MHz times	Weight[2] kg	Antenna height H m	Wind load[3] (v=160 km/h) kg
1	2 3 4	6.5 5.0 3.2	4.46 3.16 2.09	7.8 5.8 4.6	6.02 3.80 2.88	9.5 7.7 6.1	8.91 5.89 4.07	35 50 65	1.0	256 313 303
2	1 2 3 4	12.5 9.5 8.0 6.2	17.78 8.91 6.30 4.17	13.9 10.8 8.8 7.6	24.55 12.02 7.58 5.75	14.8 12.5 10.7 9.1	3.20 17.78 11.75 8.13	35 65 102 130	2.15	178 382 468 453
4	1 2 3 4	15.5 12.5 11.0 9.2	35.48 17.78 12.59 8.31	16.9 13.8 11.8 10.6	48.90 23.99 15.13 11.48	17.8 15.5 13.7 12.1	60.25 35.48 23.44 16.22	65 130 188 250	4.45	356 570 698 677
6	1 2 3 4	17.3 14.3 12.7 11.0	53.70 26.91 18.62 12.59	18.7 15.6 13.6 12.4	74.13 36.30 22.90 17.37	19.5 17.9 15.5 13.8	89.12 61.66 35.48 23.99	102 188 275 360	6.75	534 851 1048 1015
8	1 2 3 4	18.5 15.5 14.0 12.2	70.79 35.48 25.11 16.59	19.9 16.8 14.8 13.6	97.72 47.86 30.19 22.9	20.8 18.5 16.7 15.1	120.23 70.79 46.77 32.36	130 250 360 490	9.05	712 1135 1397 1354
12	1 2 3 4	20.3 17.3 15.7 14.0	107.15 53.70 37.15 25.11	21.7 18.6 16.6 15.4	147.91 72.44 45.71 34.67	22.5 20.2 18.5 16.8	177.83 104.71 70.79 47.86	188 360 550 730	13.65	1068 1700 2096 2030
16	1 2 3 4	21.5 18.5 17.0 15.2	141.25 70.79 50.11 33.11	22.9 19.8 17.8 16.6	194.98 95.50 60.25 45.70	25.5 21.5 19.7 18.1	354.81 141.25 93.32 64.56	130 490 730 960	18.25	1424 2270 2795 2707

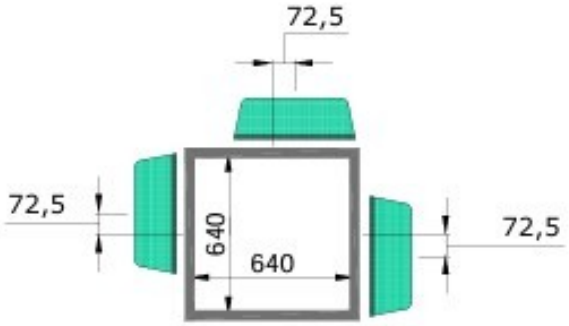
"These specifications are subject to change without notice"

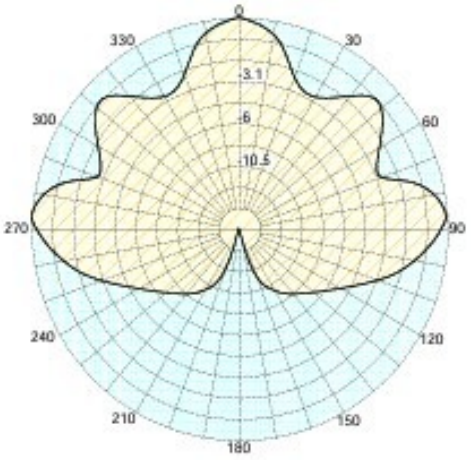
[1] referred to a half wave dipole. Attenuation of connecting cables not taken into account.
[2] without mounting hardware
[3] according to the tower type, for more details contact us

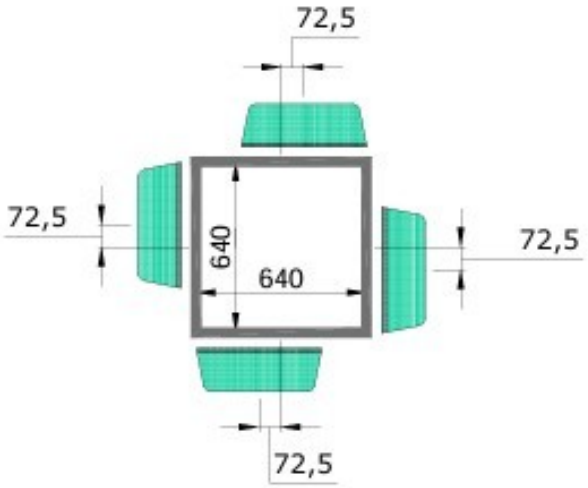
Horizontal Patterns with offset 2, 3 and 4 faces at Mid Band (650 MHz)

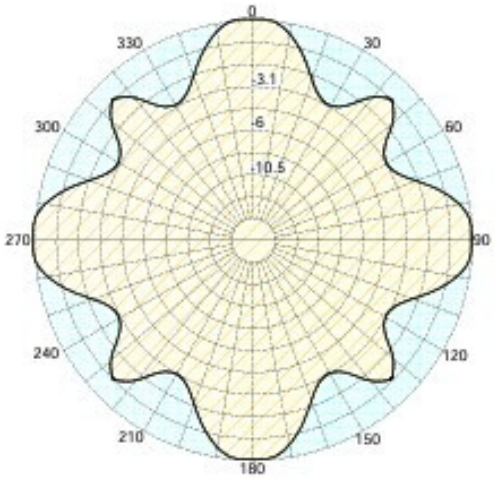












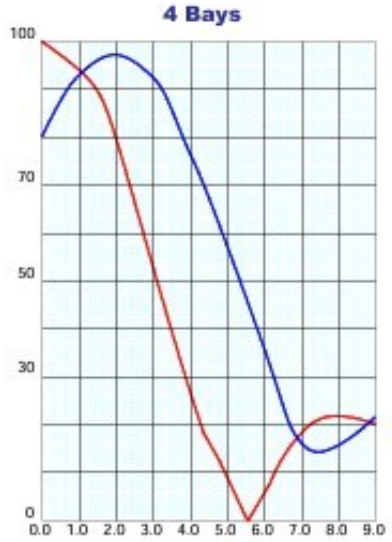
TECHNICAL DATA AT MID BAND (650 MHz)

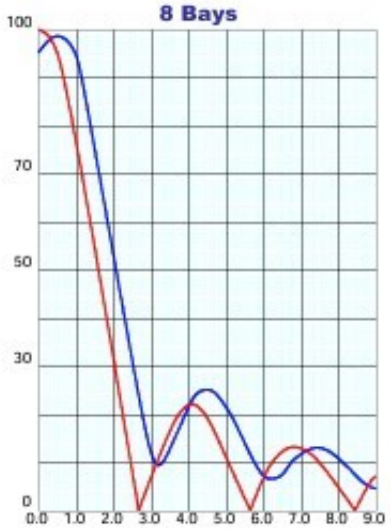
Number of bays	Panels per bay	Gain[1] dB	Gain[1] times	Weight[2] kg	Antenna height H m	Windload/kg (V=150 km/h) Without cylinder Ø 1,65 m	Windload/kg (V=150 km/h) With cylinder Ø 1,65 m
2	1 2 3 4	15.1 12.2 10.3 9.1	32.8 16.6 10.9 8.2	30 60 90 120	2.15	131 192 253 288	310
4	1 2 3 4	18.3 15.3 13.5 12.3	68.1 34 22.6 17	60 120 180 230	4.45	262 384 506 577	650
6	1 2 3 4	20 17 15.3 14	101.2 50.6 33.7 25.3	90 180 260 350	6.75	393 576 760 866	1000
8	1 2 3 4	21.3 18.3 16.6 15.3	136.4 68.2 45.4 34.1	120 230 360 460	9.05	524 768 1015 1160	1350
10	1 2 3 4	22.3 19.3 17.6 16.3	172 86.1 57.3 43	150 300 430 600	11.35	655 960 1270 1450	1650
12	1 2 3 4	23 20.1 18.3 17.1	204 102 68 51	200 360 520 700	13.65	786 1152 1520 1730	2000
16	1 2 3 4	24.3 21.3 19.6 18.4	273.2 136.6 91 68.3	250 480 720 920	18.25	1048 1540 2030 2315	2650

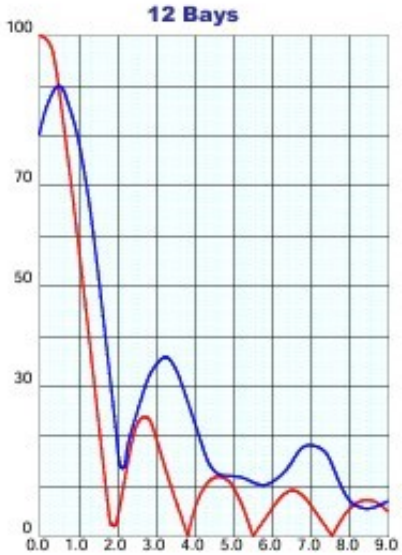
VERTICAL PATTERN

Without null fill

With null fill and beam tilt







- Gain is provided for horizontal polarization.
- If the antenna is side mounted, the supporting structure will have a slight effect on the radiation pattern and VSWR.
- Vertical tower space, wind load and weight numbers given are typical. Actual values vary with the specific installation. Contact us for more details of your installation.
- Gain will be reduced if null fill, beam tilt or special wavelength spacing is provided.
- Antenna radiation aperture is the distance from the centre of the top bay to the centre of the bottom bay.
- Antenna wind load is calculated for 100 Mph (160Km/h) per EIA-222-F standard.

PANEL DIMENSION