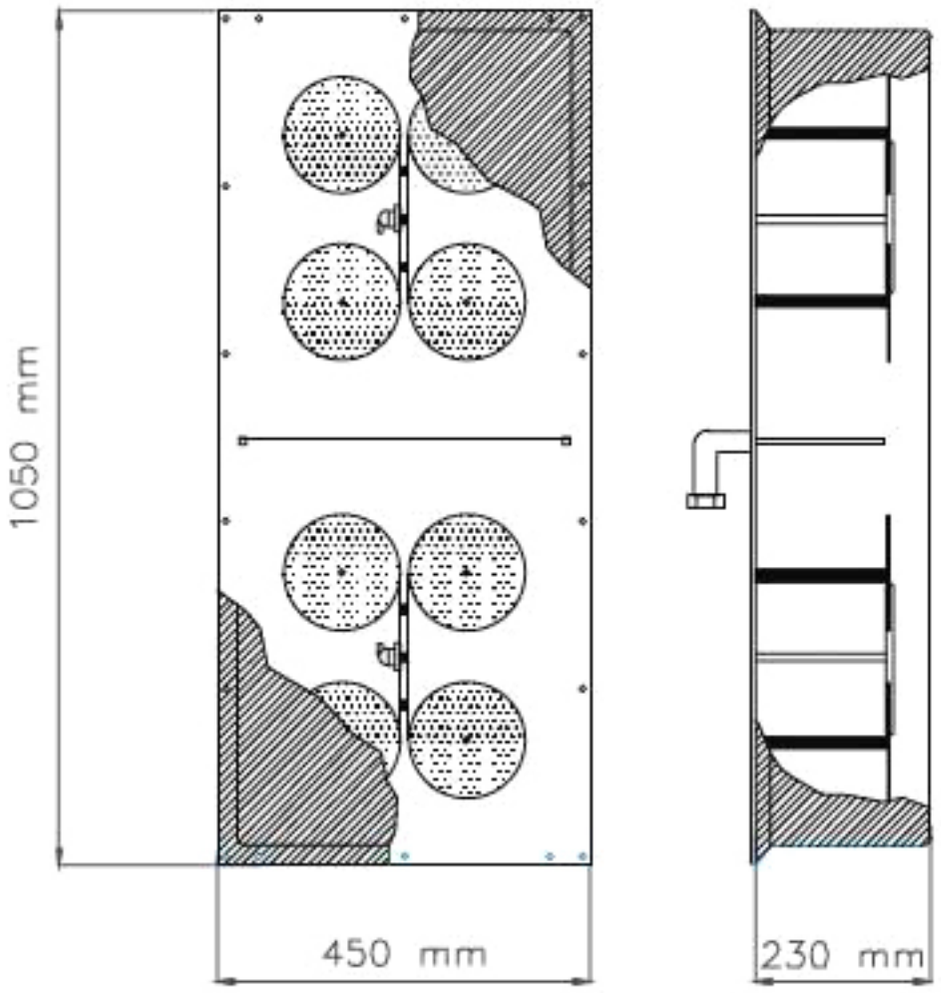
DTV READY

HORIZONTAL UHF PANEL ANTENNA AP 806

- **General.** The AP 806 Horizontal Panel Antenna A series is designed for TV transmissions in UHF Band. Each antenna is composed of eight ice protected radiating elements, a stainless-steel reflector, a fibreglass radome and mounting brackets.
- **DVT ready.** The AP 806 antenna ensures total DTV compatibility and quality.
- **Antenna systems.** Stacking more panels it's possible to obtain customized patterns, increase the gain and the power handling capacity according to user requirements. Customized pattern, electrical beam tilt and null fill are available upon request.
- **Broadband.** Suitable for channel or broadband (470 - 860 MHz) operations with multi-channel combiners..
- **Water, icing and moisture protection.** The internal elements are protected against water, icing and moisture ingress by a sealed fiberglass radome. The input connector is protected against rain and icing by a special housing.
- **State of the art** mechanical design, employing the finest materials (stainless steel, non-corrosive brass, copper, virgin PTFE and fiberglass) resulting in long life service.
- **Lightning resistance** is guaranteed by the DC ground potential of the entire antenna.

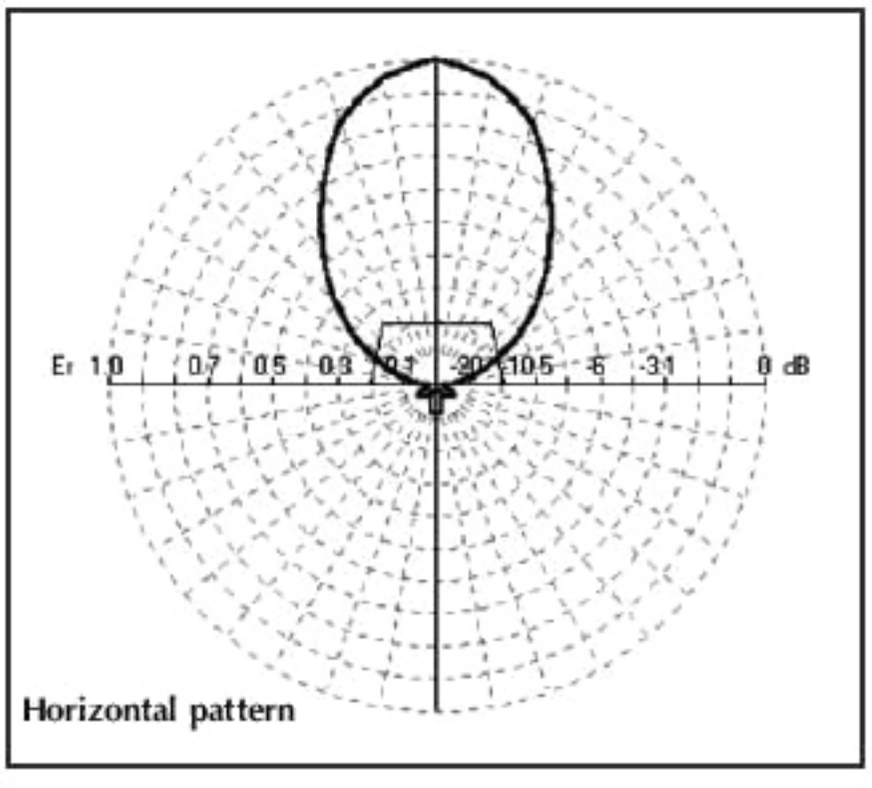


R.F. Data:

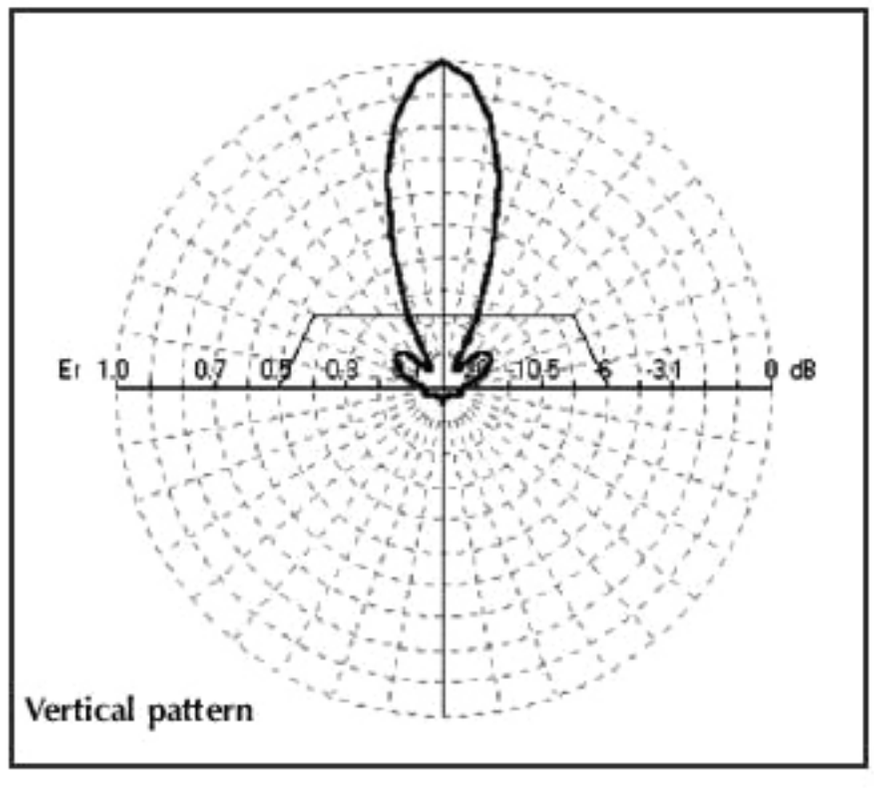
Frequency Range	470 - 860 MHz
Bandwidth	Broadband
Polarization	Horizontal
Connectors:	
- AP 806/N	N female
- AP 806/716	DIN 7/16" 90°
- AP 806/78	EIA 7/8" 90°
Max. power handling capability:	
- AP 806/N	0.5 kWps
- AP 806/716	1.4 kWps
- AP 806/78	3.5 kWps
Gain (at mid-band, ref. to λ/2 dipole)	12.0 dBd
VSWR (in the whole band)	<1.1:1
Impedance	50 Ω
Front to back ratio	>25 dB
Wind load (ref. 150 Km/h):	
-Frontal	58 Kg
-Lateral	34 Kg
Grounding	Via clamps
Horizontal Beamwidth (at -3 dB, at mid band)	57°
Vertical Beamwidth (at -3 dB, at mid band)	29°

Mechanicals

Materials:	
Radiators	Silver plated brass and cooper
Reflector	Stainless steel
Radome	Fiberglass
Clamps	Hot-dip galvanized steel
Pole diameter	55 - 110 mm (others on request)
Dimensions (HxWxD)	1050x450x230 mm
Weight (with pole clamp)	15.6 Kg



Horizontal pattern



Vertical pattern

AP 806

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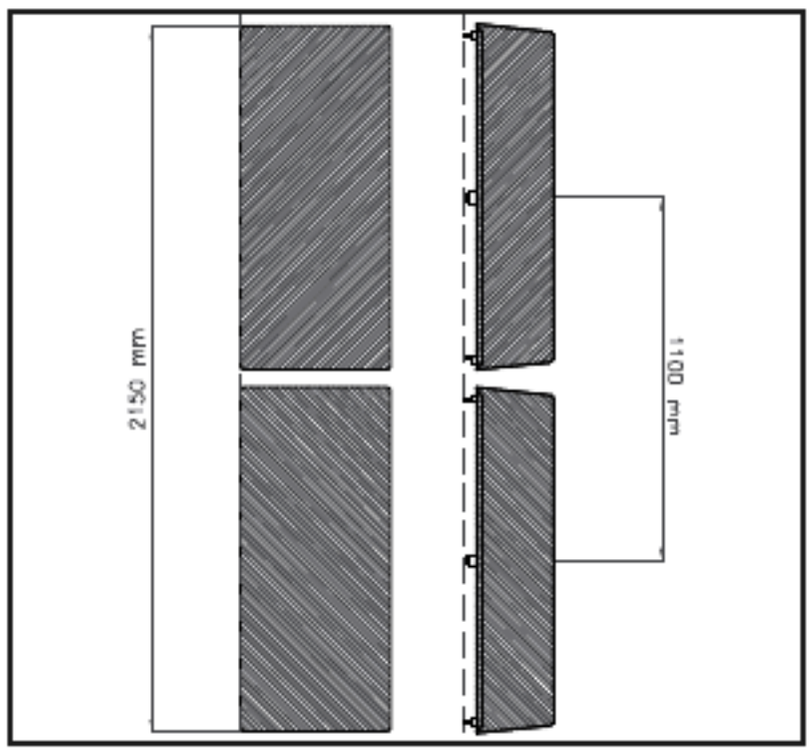
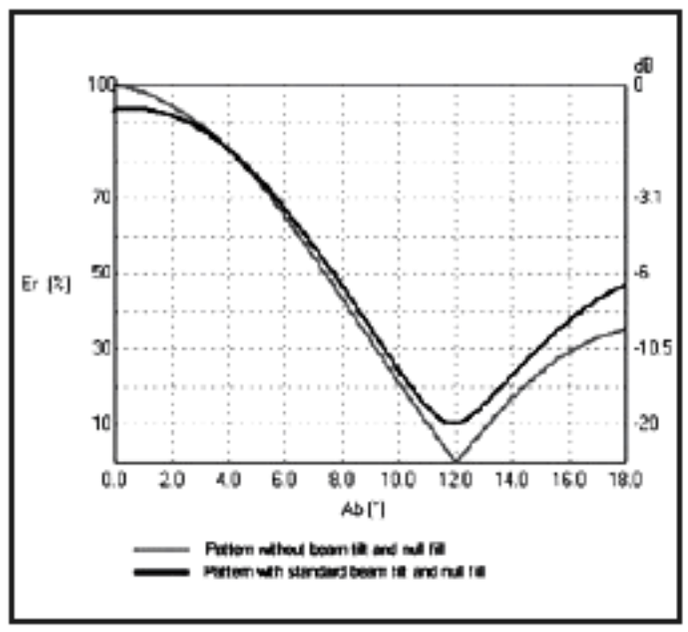
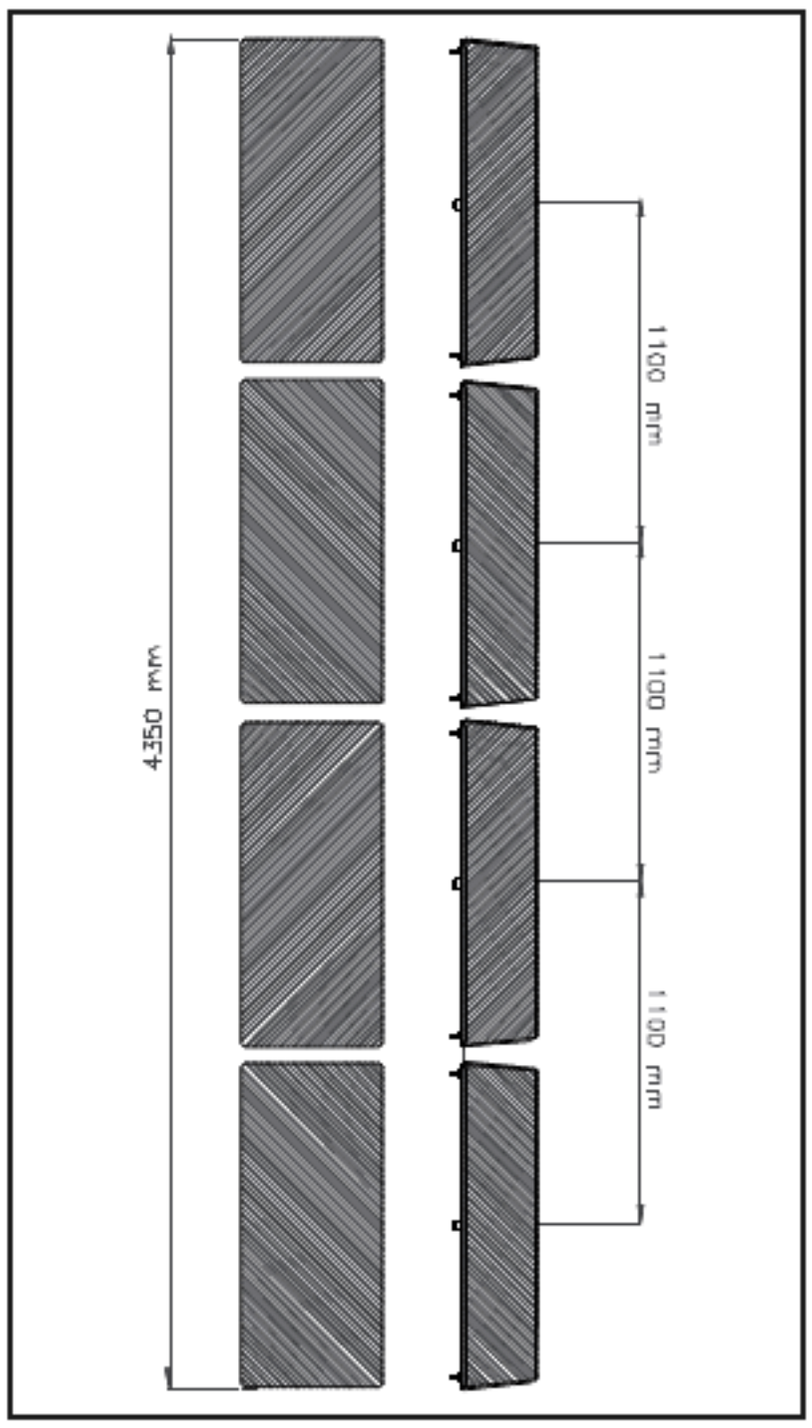
PANELS ARRANGEMENT

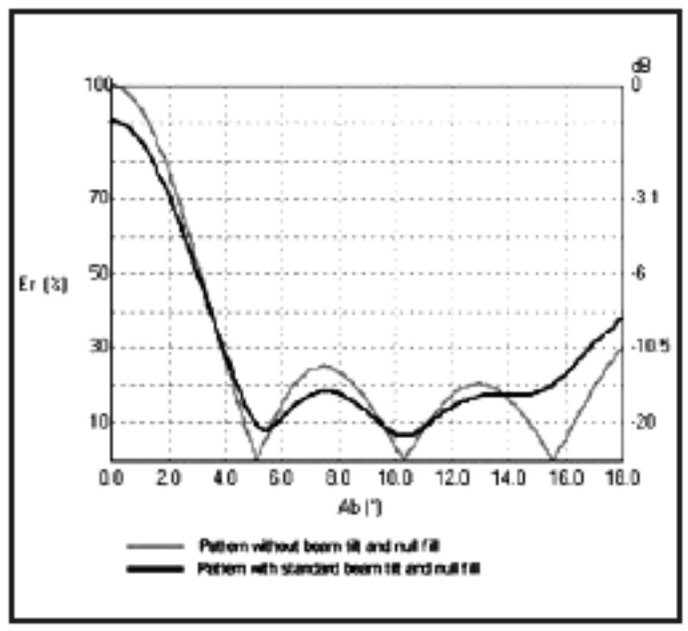




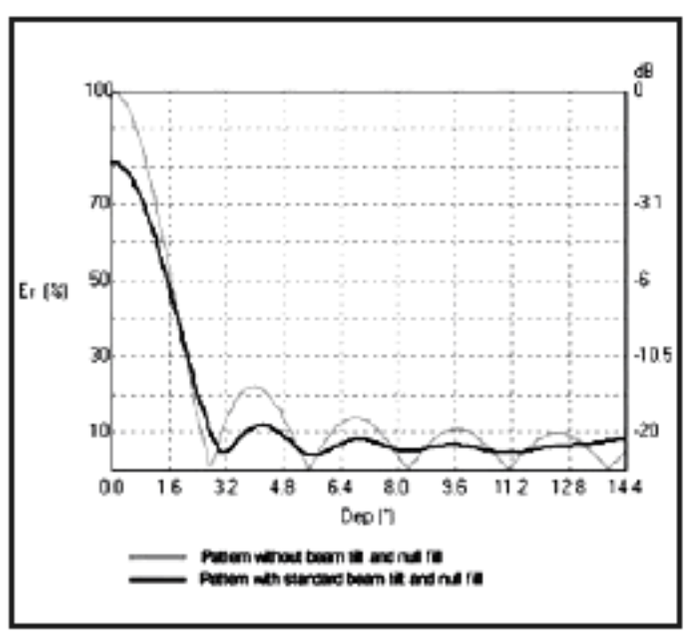
2 APO8 PANELS TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN HORIZONTAL POLARIZATION

PANELS ARRANGEMENT





4 APO8 PANELS TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN HORIZONTAL POLARIZATION



8APO8 PANELS TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN HORIZONTAL POLARIZATION

General arrays specifications

NUMBER OF BAYS	ANTENNAS PER BAY	GAIN (dBd)	WEIGHT (KG)	VERTICAL DIMENSIONS (mt)	WIND LOAD (REF. 150 KM/H)/KG
1	2	+ 8.4	31.2	1.05	92
1	3	+ 7.5	46.8	1.05	126
1	4	+ 5.7	62.4	1.05	184
2	2	+ 11.4	62.4	2.10	184
2	3	+ 10.6	93.6	2.10	252
2	4	+ 7.8	124.8	2.10	368
4	2	+ 13.6	124.8	4.20	368
4	3	+ 12.6	187.2	4.20	504
4	4	+ 11.7	249.6	4.20	736
6	2	+ 16.2	187.2	6.30	552
6	3	+ 15.0	280.8	6.30	756
6	4	+ 14.0	374.4	6.30	1104
8	2	+ 17.4	249.6	8.40	736
8	3	+ 16.0	374.4	8.40	1008
8	4	+ 14.9	499.2	8.40	1472

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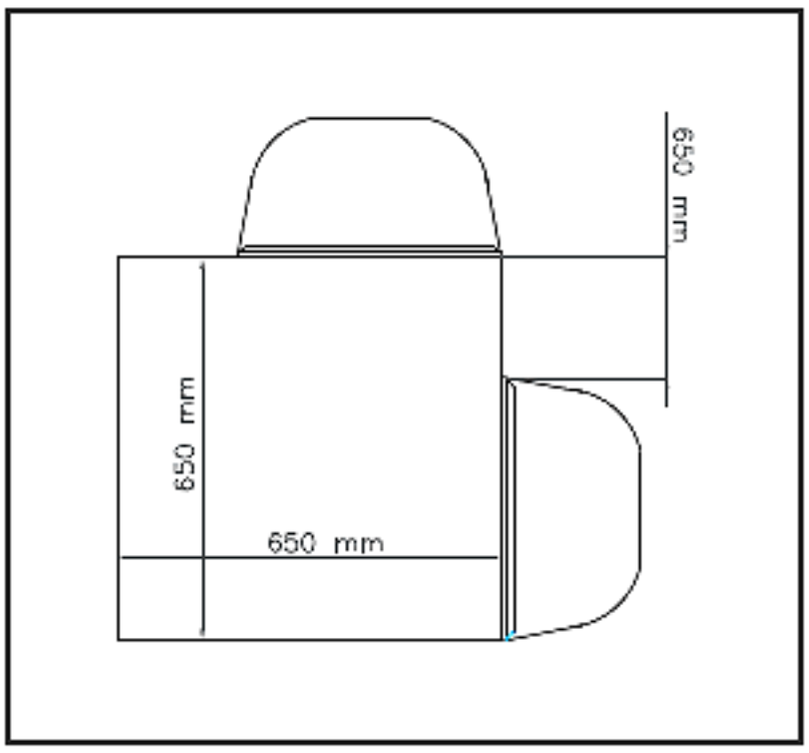
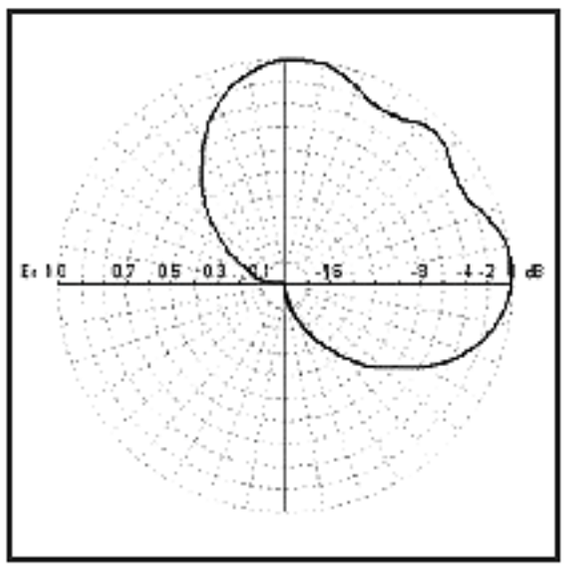
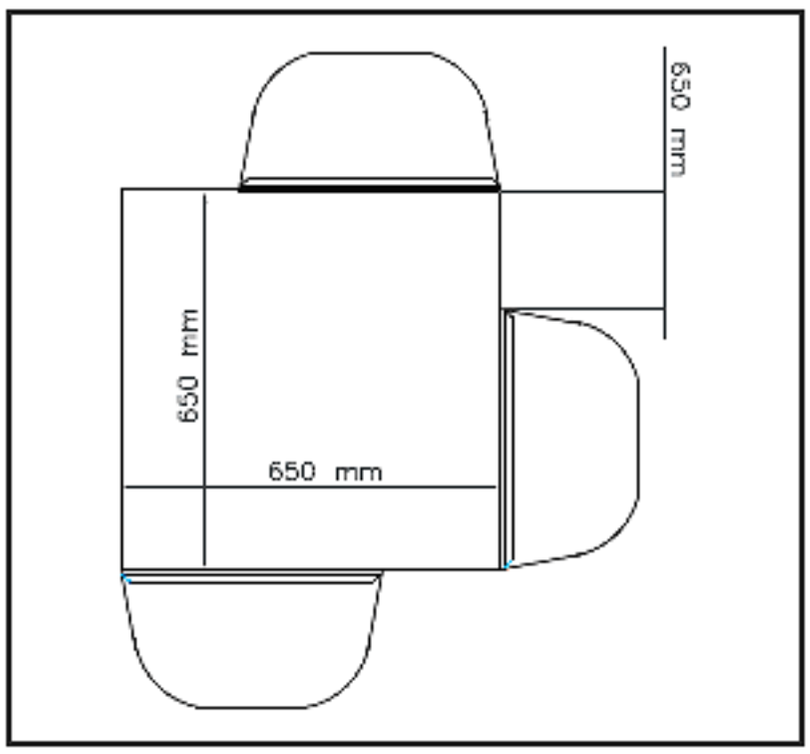
EXAMPLE OF 2 FACES WITH EQUAL POWER

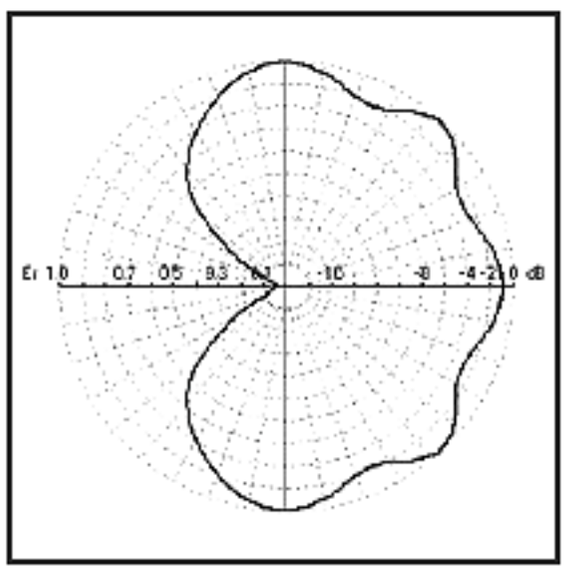




2 APO8 ON 1 BAY TYPICAL HORIZONTAL RADIATION PATTERN AT MID BAND IN HORIZONTAL POLARIZATION

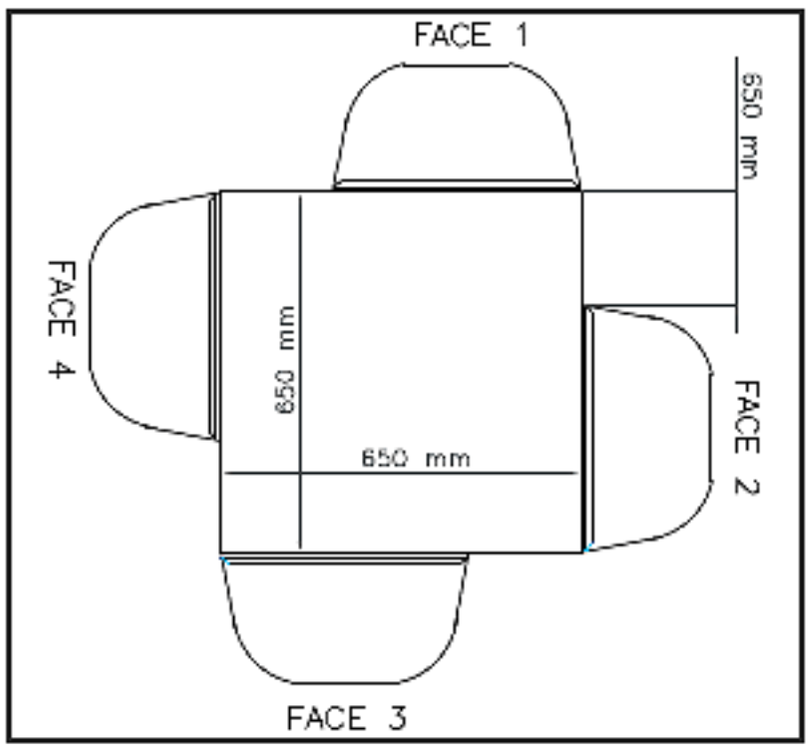
EXAMPLE OF 3 FACES WITH EQUAL POWER

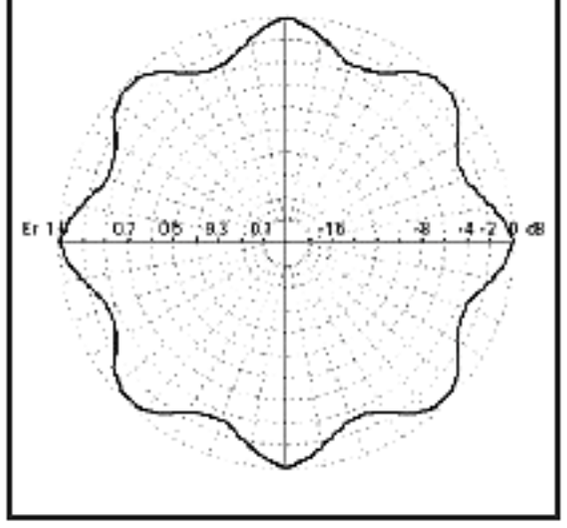




3 APO8 ON 1 BAY TYPICAL HORIZONTAL RADIATION PATTERN AT MID BAND IN HORIZONTAL POLARIZATION

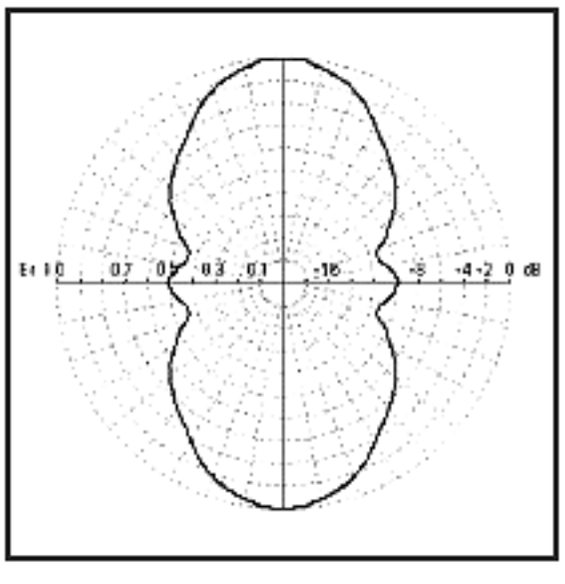
EXAMPLE OF 4 FACES WITH EQUAL AND DIFFERENT POWER





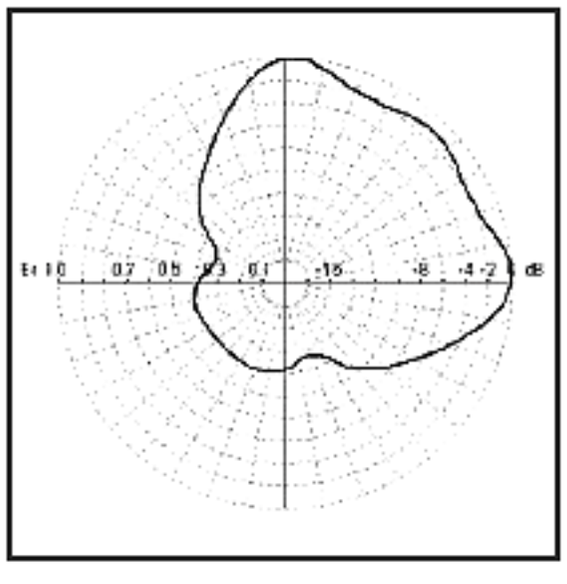
POWER DISTRIBUTION:
- FACE 1= 1/4 P
- FACE 2= 1/4 P
- FACE 3= 1/4 P
- FACE 4= 1/4 P

4 APO8 ON 1 BAY TYPICAL HORIZONTAL RADIATION PATTERN AT MID BAND IN HORIZONTAL POLARIZATION



POWER DISTRIBUTION:
- FACE 1= 4/10 P
- FACE 2= 1/10 P
- FACE 3= 4/10 P
- FACE 4= 1/10 P

4 APO8 ON 1 BAY TYPICAL HORIZONTAL RADIATION PATTERN AT MID-BAND IN VERTICAL POLARIZATION



POWER DISTRIBUTION:
- FACE 1= 4/10 P
- FACE 2= 4/10 P
- FACE 3= 1/10 P
- FACE 4= 1/10 P

4 APO8 ON 1 BAY TYPICAL HORIZONTAL RADIATION PATTERN AT MID-BAND IN VERTICAL POLARIZATION