



## DIRECTIONAL 3 ELEMENTS FM BROADCAST ANTENNA

### P3-series



- **General.** The P3 Vertical Polarization Directional Antenna series is designed for FM Broadcast Band (87,5 -108 MHz) . Each antenna is made with stainless steel (PX3 models) or resistant aluminum alloy (P3 models).
- **Directional.** The radiation pattern is directional narrow lobe (see horizontal pattern in the next page).
- **Antenna systems.** By stacking more antennas it is possible to obtain customized patterns, to increase the gain and the power handling capacity according to user's requirements. Custom patterns, electrical beam tilt and null fill designs are available upon request.
- **Broadband.** Suitable for single channel or broadband operations with multi-channel combiners.
- **Easy installation.** The standard mounting brackets are designed for instant installation on poles with diameters from 32 mm to 90 mm. Special brackets are available upon request.
- **Water, icing, moisture protection.** The input connector is protected against rain and icing by a special housing. The internal balun is also protected against water, icing and moisture by a sealed housing.
- **State of the art mechanical design.** By employing the finest materials (stainless steel, non-corrosive aluminum alloy, marine brass, virgin PTFE) it is assured a longer life service.
- **Lightning resistance** is assured by the DC ground potential of the entire antenna.



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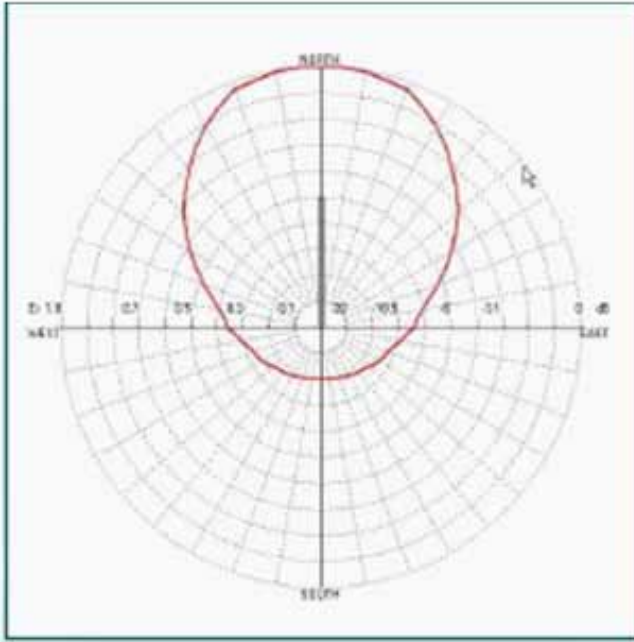
### TECHNICAL CHARACTERISTICS

#### RF DATA

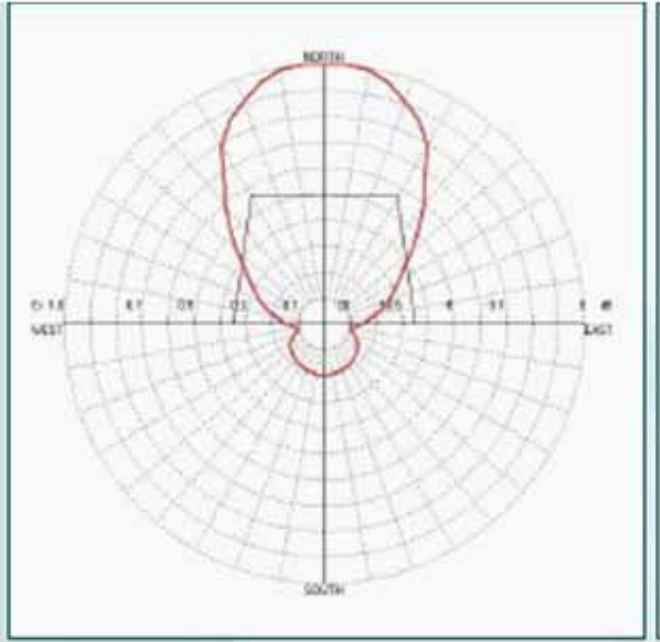
Frequency Range	87.5 - 108.0 MHz
Bandwidth	Broadband
Polarization	Vertical
Connectors	
P3-N	N female
P3-7/16	DIN 7/16"
P3-7/8	EIA 7/8"
Maximum Input Power	
P3-N	0.8 kW
P3-7/16	1.5 kW
P3-7/8	4 kW
Gain (at mid band, ref. to $\lambda/2$ dipole)	5.2 dBd
VSWR (in the whole band)	< 1.35:1
Impedance	50 $\Omega$
Frontal to back ratio	> 21 dB
Wind load (ref 150 Km/h)	
Frontal	19 Kg
Lateral	34 Kg
Grounding	Via clamps
Horizontal Beam width (at -3 dB, at mid band)	84°
Vertical Beam width (at -3 dB, at mid band)	62°

#### MECHANICALS

Materials	
P3 Anodized	Aluminum
PX3 Stainless Steel Pole diameter	32 - 90 mm (others on request)
Dimensions (HxWxD)	1750x40x1250 mm
Weight (with pole clamp):	
P3	5.0 kg
PX3	8.0 kg



**Horizontal Pattern**



**Vertical Pattern**

### General Arrays Specifications

MODEL	NUMBER OF ANTENNAS	MAXIMUM POWER (W)	GAIN (dBd)	WEIGHT (KG) P3-PX3	VERTICAL DIMENSIONS (mt)
P3-N-2	2	1.600	+ 8.1	10.0 – 16.0	4.25
P3-N-3	3	2.400	+ 9.8	15.0 – 24.0	6.75
P3-N-4	4	3.200	+ 10.9	20.0 – 32.0	9.25
P3-N-6	6	4.800	+ 12.2	30.0 – 48.0	14.25
P3-N-8	8	6.400	+ 13.4	40.0 – 64.0	19.25
P3-7/16-2	2	3.000	+ 8.1	10.0 – 16.0	4.25
P3-7/16-3	3	4.500	+ 9.8	15.0 – 24.0	6.75
P3-7/16-4	4	6.000	+ 10.9	20.0 – 32.0	9.25
P3-7/16-6	6	9.000	+ 12.2	30.0 – 48.0	14.25
P3-7/16-8	8	12.000	+ 13.4	40.0 – 64.0	19.25
P3-7/8-2	2	8.000	+ 8.1	10.0 – 16.0	4.25
P3-7/8-3	3	12.000	+ 9.8	15.0 – 24.0	6.75
P3-7/8-4	4	16.000	+ 10.9	20.0 – 32.0	9.25
P3-7/8-6	6	24.000	+ 12.2	30.0 – 48.0	14.25
P3-7/8-8	8	32.000	+ 13.4	40.0 – 64.0	19.25



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### DIPOLES ARRANGEMENT

