



DS038439-2

5/16/2023

## 6 dBd HD omni antenna 380 - 430 MHz, Low PIM

### Description

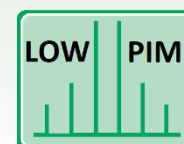
The 104P-56-6- Series omni antenna is designed for demanding applications where a durable and high performance colinear is required.

The center-fed dipole design and feed network gives a stable radiation pattern across a wide bandwidth, and allows tilted beam designs to be effectively employed without large pattern distortions.

High quality materials and manufacturing techniques are employed to ensure that the antenna has excellent intermodulation performance & wide bandwidth characteristics for multi-channel trunked radio communication systems.

The antenna has been designed to withstand lightning strikes.

Low PIM rating.



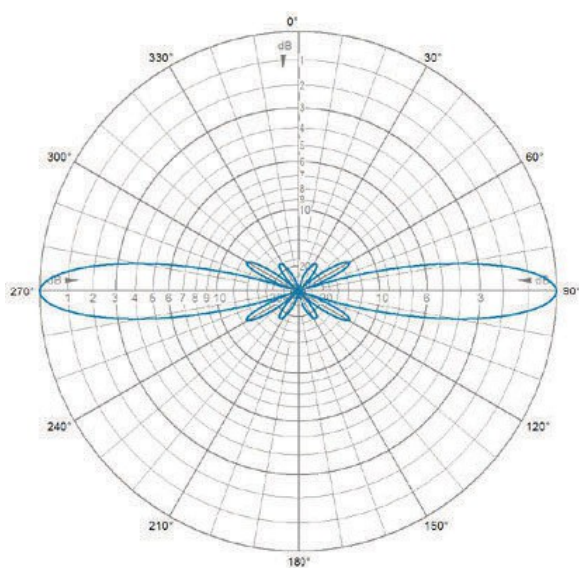
### Specifications

Electrical	
Model	104P-56-6-X-XX-XX (see model number list below)
Frequency	380 - 430 MHz
Max. Input Power	300 W
Omni Deviation	< $\pm 1$ dB
Polarization	Vertical
Peak Instantaneous Power (PIP)	25 kW
3 dB Beamwidth, E-Plane	16° $\pm 1$ °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 $\Omega$
Gain	6.0 dBd (8.2 dBi)
VSWR	< 1.5:1
Passive Intermodulation	-153 dBc (3rd Order, 2 x Tx @ 43 dBm) (PIM value not guaranteed for N connector version)
Lightning Protection Lightning current handling capability	200 kA According to EN 62305-1 (Test pulse 10/350 $\mu$ s)
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)

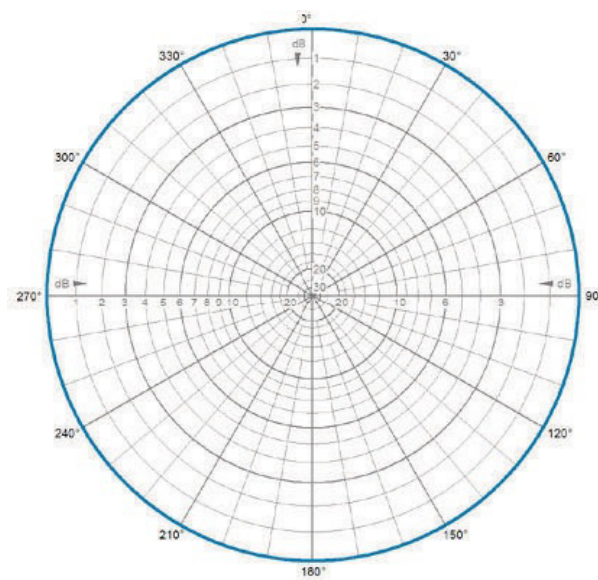
Mechanical	
Connection(s)	7/16 DIN(f), N(f) or 4.3-10(f)
Materials	Antenna Base: Aluminum Shroud: GRP tube 53 mm dia.
Mounting Section	Al. tube 63.5 mm dia. x 350 mm long
Dimensions	2900 (l) x 53 (dia.) mm / 114.17 x 2.09 (dia.) in.
Wind Load	230 N (160 km/h)
Weight	Approx. 8.1 kg / 17.86 lb

Environmental	
Operating Temperature Range	-40 °C to +70 °C
Survival Wind Speed	300 km/h
Ingress Protection	IP56

## Radiation Pattern



E-Plane | 405 MHz



H-Plane | 405 MHz

Model	Description	Type	Frequency Range
104P-56-6-0-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 0° Electrical Tilt	380 - 430 MHz
104P-56-6-4-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 4° Electrical Tilt	380 - 430 MHz
104P-56-6-5-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 5° Electrical Tilt	380 - 430 MHz
104P-56-6-6-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 6° Electrical Tilt	380 - 430 MHz
104P-56-6-8-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 8° Electrical Tilt	380 - 430 MHz
104P-56-6-10-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 10° Electrical Tilt	380 - 430 MHz
104P-56-6-12-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 12° Electrical Tilt	380 - 430 MHz
104P-56-6-0-07-N	6 dBd HD omni antenna, low PIM	N(f); 0° Electrical Tilt	380 - 430 MHz
104P-56-6-4-07-N	6 dBd HD omni antenna, low PIM	N(f); 4° Electrical Tilt	380 - 430 MHz
104P-56-6-5-07-N	6 dBd HD omni antenna, low PIM	N(f); 5° Electrical Tilt	380 - 430 MHz
104P-56-6-6-07-N	6 dBd HD omni antenna, low PIM	N(f); 6° Electrical Tilt	380 - 430 MHz
104P-56-6-8-07-N	6 dBd HD omni antenna, low PIM	N(f); 8° Electrical Tilt	380 - 430 MHz
104P-56-6-10-07-N	6 dBd HD omni antenna, low PIM	N(f); 10° Electrical Tilt	380 - 430 MHz
104P-56-6-12-07-N	6 dBd HD omni antenna, low PIM	N(f); 12° Electrical Tilt	380 - 430 MHz
104P-56-6-0-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 0° Electrical Tilt	380 - 430 MHz
104P-56-6-4-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 4° Electrical Tilt	380 - 430 MHz
104P-56-6-5-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 5° Electrical Tilt	380 - 430 MHz
104P-56-6-6-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 6° Electrical Tilt	380 - 430 MHz
104P-56-6-8-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 8° Electrical Tilt	380 - 430 MHz
104P-56-6-10-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 10° Electrical Tilt	380 - 430 MHz
104P-56-6-12-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 12° Electrical Tilt	380 - 430 MHz
<b>Accessories</b>			
91-00-104-01	Galvanized steel parallel bracket	38 - 120 mm (PAIR)	NA
91-00-104-02	Extruded Parallel Tube Clamp	50 - 76 mm	NA

## Mounting Details

In order to ensure proper ground connection against lightning strikes, connect the grounding cable to the bolt at the end of the bracket using a locknut (not a part of the bracket assembly). The recommended minimum cross-section of the grounding wire is for copper wire 16 mm<sup>2</sup> and for aluminium 25 mm<sup>2</sup>

