

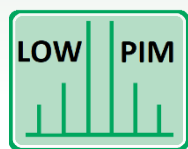


DS038446-2
5/16/2023

6 dBd HD omni antenna 410 - 460 MHz, Low PIM

Description

- The 104P-60L-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.



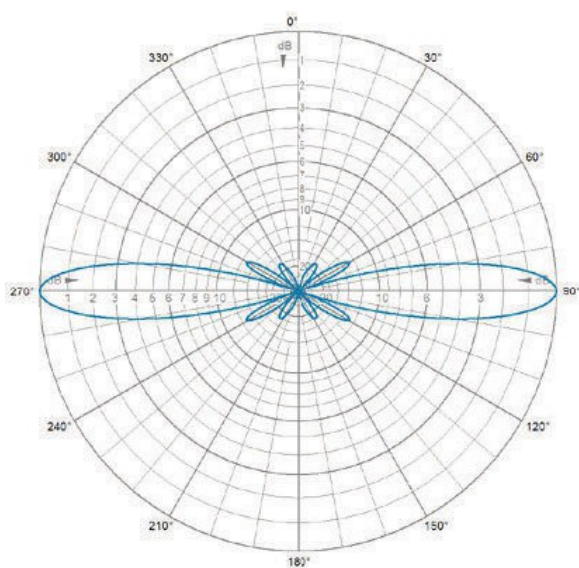
Specifications

Electrical	
Model	104P-60L-6-X-XX-XX (see model number list below)
Frequency	410 - 460 MHz
Max. Input Power	300 W
Omni Deviation	< ± 1 dB
Polarization	Vertical
Peak Instantaneous Power (PIP)	25 kW
3 dB Beamwidth, E-Plane	16° ±1°
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain 8.7	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 μs)
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)

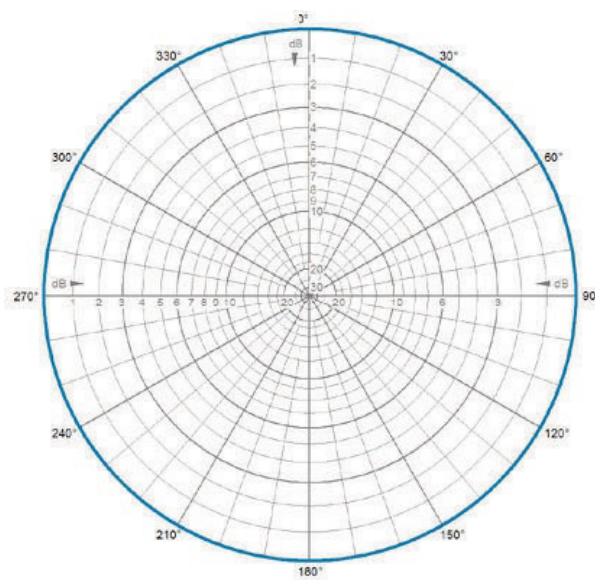
Mechanical	
Connection(s)	7/16 DIN(f), N(f) or 4.3-10(f)
Materials	Antenna Base: Aluminum Shroud: GRP tube 53 mm dia.
Mounting Section	Al. tube 63.5 mm dia. x 350 mm long
Dimensions	2900 (l) x 53 (dia.) mm / 114.17 x 2.09 (dia.) in.
Wind Load	230 N (160 km/h)
Weight	Approx. 8.1 kg / 17.86 lb

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

Radiation Pattern



E-Plane | 435 MHz



H-Plane | 435 MHz

Model	Description	Type	Frequency Range
104P-60L-6-0-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 0° Electrical Tilt	410 - 460 MHz
104P-60L-6-3-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 3° Electrical Tilt	410 - 460 MHz
104P-60L-6-8-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 8° Electrical Tilt	410 - 460 MHz
104P-60L-6-12-07-D7	6 dBd HD omni antenna, low PIM	7/16 DIN(f); 12° Electrical Tilt	410 - 460 MHz
104P-60L-6-0-07-N	6 dBd HD omni antenna, low PIM	N(f); 0° Electrical Tilt	410 - 460 MHz
104P-60L-6-3-07-N	6 dBd HD omni antenna, low PIM	N(f); 3° Electrical Tilt	410 - 460 MHz
104P-60L-6-8-07-N	6 dBd HD omni antenna, low PIM	N(f); 8° Electrical Tilt	410 - 460 MHz
104P-60L-6-12-07-N	6 dBd HD omni antenna, low PIM	N(f); 12° Electrical Tilt	410 - 460 MHz
104P-60L-6-0-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 0° Electrical Tilt	410 - 460 MHz
104P-60L-6-3-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 3° Electrical Tilt	410 - 460 MHz
104P-60L-6-8-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 8° Electrical Tilt	410 - 460 MHz
104P-60L-6-12-07-D4	6 dBd HD omni antenna, low PIM	4.3-10(f); 12° Electrical Tilt	410 - 460 MHz
Accessories			
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 mm² and for aluminium 25 mm²

