



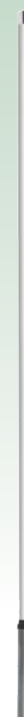
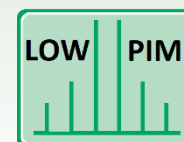
DS038387-2

5/16/2023

## 9 dBd HD omni antenna 420 - 470 MHz, Low PIM

### Description

- The 104P-64A-9- 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.



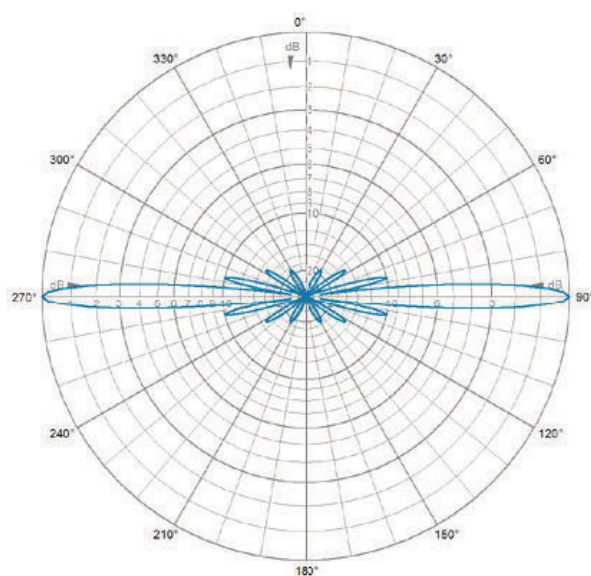
### Specifications

Electrical	
Model	104P-64A-9-X-XX-XX (see model number list below)
Frequency	420 - 470 MHz
Max. Input Power	300 W
Omni Deviation	< $\pm 1$ dB
Polarization	Vertical
Peak Instantaneous Power (PIP)	25 kW
3 dB Beamwidth, E-Plane	$8^{\circ} \pm 1^{\circ}$
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 $\Omega$
Gain 8.7	8.7 dBd (10.9 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	Protection All metal parts DC-grounded (Connector shows a DC-short)

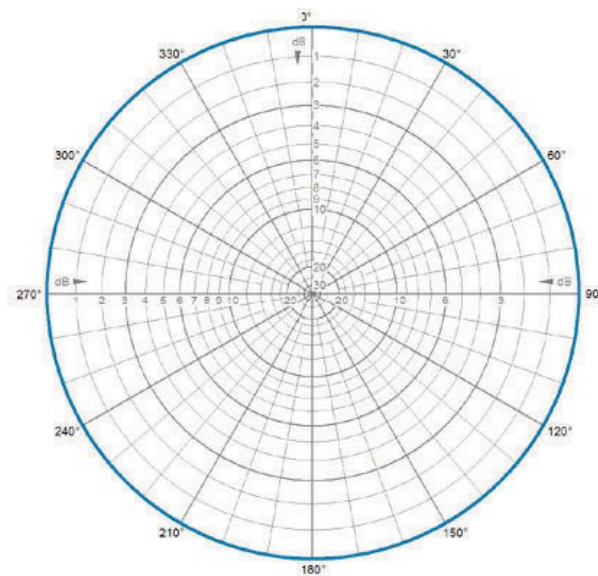
Mechanical	
Connection(s)	7/16 DIN(f), N(f) or 4.3-10(f)
Materials	Antenna Base: Aluminum Shroud: GRP tube 53 mm dia.
Mounting Section	Al. tube 63.5 mm dia. x 350 mm long
Dimensions	5370 (l) x 53 (dia.) mm / 211.42 x 2.09 (dia.) in.
Wind Load	417 N (160 km/h)
Weight	Approx. 13 kg / 28.66 lb.

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

## Radiation Pattern



E-Plane | 445 MHz



H-Plane | 445 MHz

Model	Description	Type	Frequency Range
104P-64A-9-0-07-D7	9 dBd HD omni antenna, low PIM	7/16 DIN(f); 0° Electrical Tilt	420 - 470 MHz
104P-64A-9-2-07-D7	9 dBd HD omni antenna, low PIM	7/16 DIN(f); 2° Electrical Tilt	420 - 470 MHz
104P-64A-9-4-07-D7	9 dBd HD omni antenna, low PIM	7/16 DIN(f); 4° Electrical Tilt	420 - 470 MHz
104P-64A-9-6-07-D7	9 dBd HD omni antenna, low PIM	7/16 DIN(f); 6° Electrical Tilt	420 - 470 MHz
104P-64A-9-0-07-N	9 dBd HD omni antenna, low PIM	N(f); 0° Electrical Tilt	420 - 470 MHz
104P-64A-9-2-07-N	9 dBd HD omni antenna, low PIM	N(f); 2° Electrical Tilt	420 - 470 MHz
104P-64A-9-4-07-N	9 dBd HD omni antenna, low PIM	N(f); 4° Electrical Tilt	420 - 470 MHz
104P-64A-9-6-07-N	9 dBd HD omni antenna, low PIM	N(f); 6° Electrical Tilt	420 - 470 MHz
104P-64A-9-0-07-D4	9 dBd HD omni antenna, low PIM	4.3-10(f); 0° Electrical Tilt	420 - 470 MHz
104P-64A-9-2-07-D4	9 dBd HD omni antenna, low PIM	4.3-10(f); 2° Electrical Tilt	420 - 470 MHz
104P-64A-9-4-07-D4	9 dBd HD omni antenna, low PIM	4.3-10(f); 4° Electrical Tilt	420 - 470 MHz
104P-64A-9-6-07-D4	9 dBd HD omni antenna, low PIM	4.3-10(f); 6° Electrical Tilt	420 - 470 MHz
<b>Accessories</b>			
91-00-104-01	Galvanized steel parallel bracket	38 - 120 mm (PAIR)	
91-00-104-02	Extruded Parallel Tube Clamp	50 - 76 mm	

## Installation Note

Please note that the survival wind speed which is quoted for this product is based on a static load test simulating a single gust of wind, according to EN 1991-1-4. Continuous flexure of the antenna, over long periods of time in extreme conditions, can cause a gradual deterioration in the structural integrity of the materials; this may result in a reduction of specifications or other failure of the antenna structure.

If the antenna is to be installed in conditions where it will be regularly exposed to winds over 160 km/h, we recommend that the antenna is stabilized with a second bracket at the top of the shroud.

Non-conductive bracket **FB-HB** can be used in conjunction with one of our **SMC** brackets to achieve this.

## Mounting Details

