

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

### DESCRIPTION

- The 422x Series omni antenna is designed for demanding applications where a durable and high performance colinear is required.
- The centre 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 strike.
- Former Skymasts brand product.



### SPECIFICATIONS

Electrical	
Model	422x.06-405-Txx
Frequency	380 - 430 MHz
Max. Input Power	300 W
Omni Deviation	< ± 1 dB
Polarisation	Vertical
Peak Instantaneous Power (PIP)	25 kW
3 dB Beamwidth, E-Plane	16° ±1°
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	6 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 : Aluminium 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.
Mounting Bracket	2141.01.00.00 (up to 120 mm dia.) (Ordered Separately)  ETC-250 (50 to 76 mm dia.) (Ordered Separately)
Environmental	
Operating temperature range	-40 °C to +70 °C
Survival Wind Speed	300 km/h
Ingress Protection	IP56

ORDERING

Model	Product No.	Description	Frequency
6 dBd HD omni antenna, low PIM	4220.06-405-T0	7/16 DIN(f) ; 0° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T2	7/16 DIN(f) ; 2° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T4	7/16 DIN(f) ; 4° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T5	7/16 DIN(f) ; 5° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T6	7/16 DIN(f) ; 6° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T8	7/16 DIN(f) ; 8° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T10	7/16 DIN(f) ; 10° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4220.06-405-T12	7/16 DIN(f) ; 12° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T0	N(f) ; 0° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T2	N(f) ; 2° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T4	N(f) ; 4° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T5	N(f) ; 5° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T6	N(f) ; 6° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T8	N(f) ; 8° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T10	N(f) ; 10° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4221.06-405-T12	N(f) ; 12° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T0	4.3-10(f) ; 0° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T2	4.3-10(f) ; 2° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T4	4.3-10(f) ; 4° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T5	4.3-10(f) ; 5° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T6	4.3-10(f) ; 6° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T8	4.3-10(f) ; 8° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T10	4.3-10(f) ; 10° Electrical Tilt	380 - 430 MHz
6 dBd HD omni antenna, low PIM	4223.06-405-T12	4.3-10(f) ; 12° Electrical Tilt	380 - 430 MHz

Accessories

Galvanised steel parallel bracket	2141.01.00.00	38 - 120 mm (PAIR)	
Extruded Parallel Tube Clamp	ETC-250	50 - 76 mm	

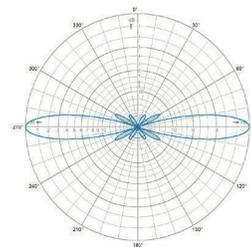
MOUNTING DETAILS



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>

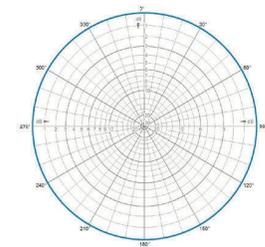
DIAGRAM

RADIATION PATTERNS



E-Plane | 405 MHz

RADIATION PATTERNS



H-Plane | 405 MHz

