

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

### DESCRIPTION

- The 4220 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                     |  |
|--------------------------------|--|
| 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        | -153dBc (3rd Order, 2 x Tx @ 43dBm)  |
| 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)                                     |

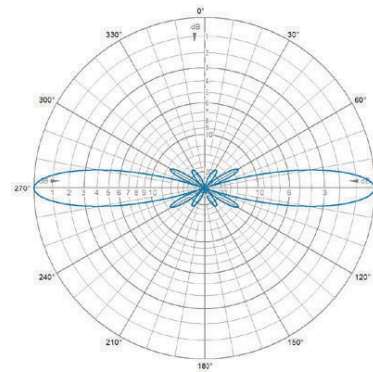
| Mechanical       |   |  |
|------------------|---|--|
| Connection(s)    | 7/16 DIN(f)   |  |
| Materials        | Antenna Base: Aluminium<br>Shroud: GRP tube 53mm dia. |  |
| Mounting Section | Al. tube 63.5 mm dia. x 350 mm long                   |  |
| Dimensions       | 2900 (l) x 53 (dia.) mm /<br>114.17 x 2.09 (dia.) in. |  |
| Wind Load        | 230 N (160km/h)                                       |  |
| Weight           | 8.1 kg / 17.86 lb                                     |  |
| Mounting Bracket | 2141.01.00.00 (up to ø120mm)<br>(Ordered Separately)  | ETC-250 (ø50 to ø76mm)<br>(Ordered Separately) |

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



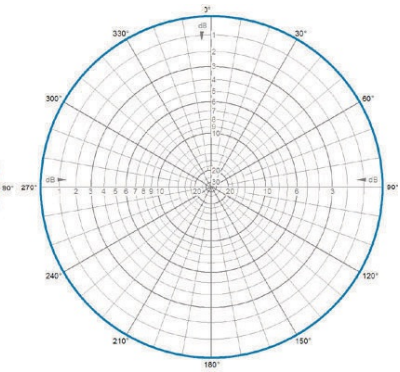
### DIAGRAM

RADIATION PATTERNS



E-Plane | 405 MHz

RADIATION PATTERNS



H-Plane | 405 MHz

## ORDERING

| Model   | Product No.     | Description         | Frequency     |
|---|-----------------|---------------------|---------------|
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T0  | 0° Electrical Tilt  | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T4  | 4° Electrical Tilt  | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T5  | 5° Electrical Tilt  | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T6  | 6° Electrical Tilt  | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T8  | 8° Electrical Tilt  | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T10 | 10° Electrical Tilt | 380 - 430 MHz |
| 6 dBd HD omni antenna 380-430MHz, low PIM         | 4220.06-405-T12 | 12° Electrical Tilt | 380 - 430 MHz |
| Galvanised steel parallel bracket 38-120mm (PAIR) | 2141.01.00.00   |                     |               |
| Extruded Parallel Tube Clamp, 50 - 76mm           | ETC-250         |                     |               |

