# 3 dBd HD omni antenna 420-470MHz, 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

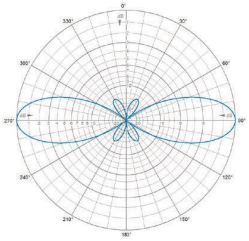
| Electrical | |
|---|---|
| Frequency | 420 - 470 MHz |
| Max. Input Power | 300 W |
| Omni Deviation | < ± 1 dB |
| Polarisation | Vertical |
| Peak Instantaneous Power (PIP) | 25 kW |
| 3 dB Beamwidth, E-Plane | 35° ±1° |
| 3 dB Beamwidth, H-Plane | Omnidirectional |
| Impedance | 50 Ω |
| Gain | 3 dBd (5.2 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 Shroud: GRP tube 53mm dia. | |
| Mounting Section | Al. tube 63.5 mm dia. x 350 mm long | |
| Dimensions | 1600 (l) x 53 (dia.) mm | |
| Wind Load | 142 N (160km/h) | |
| Weight | 4 kg / 8.82 lb | |
| Mounting Bracket | 2141.01.00.00 (up to ø120mm) (Ordered Separately) | ETC-250 (ø50 to ø76mm) (Ordered Separately) |

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

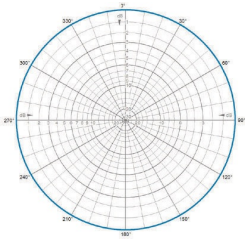
## DIAGRAM

### RADIATION PATTERNS



E-Plane | 445 MHz

### RADIATION PATTERNS



H-Plane | 445 MHz

## ORDERING

| Model | Product No. | Description | Frequency |
|---|---|---|---|
| 3 dBd HD omni antenna 420-470MHz, low PIM | 4220.03-445-T0 | 0° Electrical Tilt | 420 - 470 MHz |
| 3 dBd HD omni antenna 420-470MHz, low PIM | 4220.03-445-T6 | 6° Electrical Tilt | 420 - 470 MHz |
| 3 dBd HD omni antenna 420-470MHz, low PIM | 4220.03-445-T8 | 8° Electrical Tilt | 420 - 470 MHz |
| 3 dBd HD omni antenna 420-470MHz, low PIM | 4220.03-445-T12 | 12° Electrical Tilt | 420 - 470 MHz |
| Galvanised steel parallel bracket 38-120mm (PAIR) | 2141.01.00.00 | | |
| Extruded Parallel Tube Clamp, 50 - 76mm | ETC-250 | | |

PROCOM A/S reserves the right to
amend specifications without prior notice