

4-stack dipole array TETRA 380-430MHz

DESCRIPTION

The 4104.04 Antenna is a version of the S.M4 four-stack dipole array, designed for improved performance in multi-channel communication systems such as TETRA. High quality materials and manufacturing techniques are employed throughout to ensure that the antenna meets strict intermodulation requirements of multichannel systems. The antenna is supplied as standard with a 5 metre tail terminated with a 7/16 socket. This model has a stronger boom to cope with high wind speeds.

- Former Skymasts brand product.

SPECIFICATIONS

| Electrical                     |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| Frequency                      | 380 - 430 MHz                                                                                |
| Polarisation                   | Vertical                                                                                     |
| Peak Instantaneous Power (PIP) | 25 kW                                                                                        |
| 3 dB Beamwidth, E-Plane        | 21° ±1°                                                                                      |
| 3 dB Beamwidth, H-Plane        | 160° ±3°                                                                                     |
| Impedance                      | 50 Ω                                                                                         |
| Gain                           | 8.7 dBd (10.9 dBi)                                                                           |
| SWR                            | < 1.5:1                                                                                      |
| Maximum Input Power            | 500 W                                                                                        |
| Front-To-Back Ratio            | > 7 dB                                                                                       |
| Passive Intermodulation        | -143dBc (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)                                     |

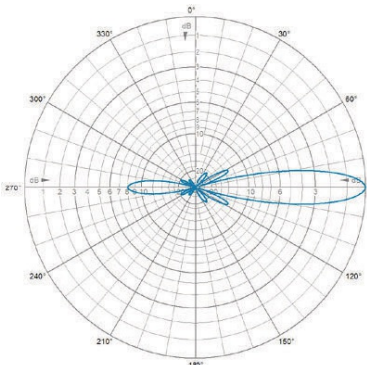
| Mechanical       |                                                                                                                       |                                                                              |                                                |
|------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------|
| Connection(s)    | 7/16(f) on 5m RG214/U cable                                                                                           |                                                                              |                                                |
| Materials        | Antenna elements: Aluminium 6063T6 ø12.7mm<br>Antenna boom: Aluminium 6082T6 ø38.1mm<br>Fasteners: Stainless steel A2 |                                                                              |                                                |
| Length           | 2600 mm / 102.36 in.                                                                                                  |                                                                              |                                                |
| Wind Load        | 232 N (160km/h)                                                                                                       |                                                                              |                                                |
| Weight           | 6 kg / 13.23 lb                                                                                                       |                                                                              |                                                |
| Mounting Bracket | 2140.01.00.00 (up to ø60mm)<br>2141.01.00.00 (up to ø120mm)<br>(Ordered Separately)                                   | 0300284/00 + U-bolts to match mounting pipe diameter<br>(Ordered Separately) | ETC-250 (ø50 to ø76mm)<br>(Ordered Separately) |

| Environmental       |          |
|---------------------|----------|
| Survival Wind Speed | 300 km/h |
| Ingress Protection  | IP68     |



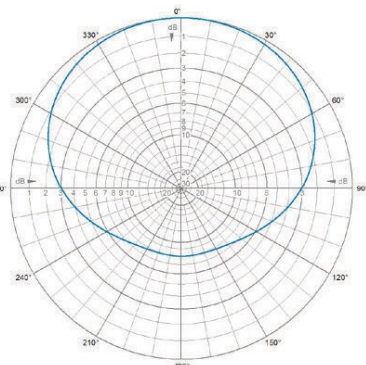
DIAGRAM

RADIATION PATTERNS



E-Plane | 405 MHz | 0°

RADIATION PATTERNS



H-Plane | 405 MHz | 0°

## ORDERING

| Type                                              | Product No.    | Description         | Frequency     |
|---------------------------------------------------|----------------|---------------------|---------------|
| 4-stack dipole array TETRA 380-430MHz             | 414.04-405-T5  | 5° Electrical Tilt  | 380 - 430 MHz |
| 4-stack dipole array TETRA 380-430MHz             | 414.04-405-T10 | 10° Electrical Tilt | 380 - 430 MHz |
| 4-stack dipole array TETRA 380-430MHz             | 414.04-405-T15 | 15° Electrical Tilt | 380 - 430 MHz |
| 4-stack dipole array TETRA 380-430MHz             | 414.04-405-T0  | 0° Electrical Tilt  | 380 - 430 MHz |
| Cast aluminium cross clamp, square                | 0300284/00     |                     |               |
| M8 x 50mm (2") U-Bolts (1 Pair)                   | 4884036/00     |                     |               |
| M8 x 75mm (3") U-Bolts (1 Pair)                   | 4884076/00     |                     |               |
| M8 x 100mm (4") U-Bolts (1 Pair)                  | 4884035/00     |                     |               |
| M10 x 125mm (5") U-Bolts (1 Pair)                 | 4884057/00     |                     |               |
| Galvanised steel parallel bracket 25-60mm (PAIR)  | 2140.01.00.00  |                     |               |
| Galvanised steel parallel bracket 38-120mm (PAIR) | 2141.01.00.00  |                     |               |
| Extruded Parallel Tube Clamp, 50 - 76mm           | ETC-250        |                     |               |

