## Product Data Sheet

### 2.3 GHz to 2.7 GHz, 65 Degree + 3.5 GHz to 4.2 GHz, 65 Degree Dual Band Sector Antenna, 4-Port, $\pm 45$ Slant (Two Sectors in One Shell)

- Supports $2 \times 2$ and $4 \times 4$ MIMO in each 2 GHz and 3 GHz bands and carrier aggregation
- Optimized Upper Elevation Side Lobes and Front to Back


## Electrical Specification

| Frequency Band | MHz | 2300-2500 | 2500-2700 | 3500-3800 | 3800-4200 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gain | dBi | $16.5 \pm 0.5$ | $17.0 \pm 0.5$ | $16.3 \pm 0.5$ | $16.8 \pm 0.5$ |
| Polarization |  | $\pm 45$ Slant | $\pm 45$ Slant | $\pm 45$ Slant | $\pm 45$ Slant |
| Horizontal HPBW | Degree | $65 \pm 3$ | $60 \pm 3$ | $65 \pm 3$ | $60 \pm 3$ |
| Horizontal Squint | Degree | $\pm 2$ | $\pm 2$ | $\pm 2$ | $\pm 2$ |
| Vertical HPBW | Degree | $8.4 \pm 0.4$ | $8.0 \pm 0.4$ | $8.8 \pm 0.3$ | $8.2 \pm 0.3$ |
| Electrical Downtilt | Degree | 4 | 4 | 4 | 4 |
| Upper Side Lobe Suppression (Peak to $20^{\circ}$ ) | dB | 15 | 15 | 17 | 16 |
| Front-to-Back Ratio @ $180^{\circ} \pm 30^{\circ}$ | dB | 33 | 32 | 35 | 35 |
| Cross-polarization Ratio over HPBW | dB | 15 | 20 | 20 | 22 |
| VSWR |  | 1.3 typ \| 1.5 max | 1.3 typ \| 1.5 max | 1.3 typ \| 1.5 max | 1.3 typ \| 1.5 max |
| Return Loss | dB | 18 typ \| 14 max | 18 typ \\| 14 max | 18 typ \| 14 max | 18 typ \| 14 max |
| Port-to-Port Isolation | dB | 30 | 30 | 30 | 30 |
| Max. Input Power per Port | W | 50 | 50 | 50 | 50 |
| Impedance | Ohms | 50 | 50 | 50 | 50 |
| Mechanical Specifications |  |  |  |  |  |


| RF Connector Type | N |
| :--- | :--- |
| RF Connector Quantity | RF |
| RF Connector Position | UV |
| Electrical Grounding | I |
| Radome Material | 1 |
| Reflector Material | 2 |
| Ingress Protection | - |
| Max. Wind Speed |  |
| Wind Load, frontal |  |
| Temperature Range |  |

## N -Type Female

4
Bottom of Radome
RF connector grounded to reflector and mounting bracket
UV resistant PVC
Anodized Aluminium
IP55 rain and dust resistant
$160 \mathrm{~km} / \mathrm{h} \mid 100 \mathrm{mph}$
242 N @ $160 \mathrm{~km} / \mathrm{h} \mid 54 \mathrm{lbf}$ @ 100 mph
$-40^{\circ}$ to $+60^{\circ} \mathrm{C} \mid-40^{\circ}$ to $+140^{\circ} \mathrm{F}$

## Bracket Specifications

| Material Type |
| :--- |
| Mechanical Downtilt (Degree) |
| Mounting Type |
| Mounting pole diameter |
| Antenna-to-Pipe Distance |
| Bracket-to-Bracket Distance |

Powder Coated Galvanized Steel
-1 to +12 (Slot 1) | $\quad-5$ to +8 (Slot 2)
Pipe Mount
$19 \mathrm{~mm}-114 \mathrm{~mm} \quad$ | $3 / 4$ in $-4 \frac{1}{2}$ in
121 mm | 4.8 in
743 mm | 29.3 in

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## Sector Dimensions

| Length | 836 mm | 32.9 in |
| :--- | ---: | :---: |
| Width | 246 mm | 9.7 in |
| Height | 67 mm | 2.6 in |
| Net Weight, with brackets | 8.4 kg | 18.5 lb |

## Shipping Dimensions

| Length | 905 mm | 35.7 in |
| :--- | ---: | :--- |
| Width | 315 mm | 12.4 in |
| Height | 200 mm | 7.9 in |
| Net Weight | 8.5 kg | 18.7 lb |

## Graphical Data



## Appendix

HPBW: Average and variation of the antenna's 3dB beamwidth (half power beamwidth) in its horizontal (Azimuth) or vertical (Elevation) pattern.
Horizontal Squint: Angle in the antenna's azimuth pattern in which the maximum gain occurs. Reported is the maximum variation in the frequency band.
Electrical Downtilt: Angle in the antenna's elevation pattern in which the maximum gain occurs.
Gain: Antenna's average gain and variation in each frequency band.
Front to Back Ratio @ $180^{\circ} \pm 30^{\circ}$ : Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over $\pm 30^{\circ}$ angles. Upper Side Lobe Suppression: The maximum value for the antenna's elevation upper side lobes from the main beam to $+20^{\circ}$.
Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

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