

# 6V-10M-F6

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12-port multibeam antenna, 12x 1695–2690 MHz, 6x 10-14° HPBW, fixed electrical tilt

- Provides 6 beams covering 1.695-2.69 GHz in 16 deg sectors
- Covers the entire mid-band, including bands 1,3,7,25,66,30,38,40,41
- Increases capacity density for maximum throughput
- Novel design produces stable beam peak positions at mid band
- Each beam supports 2x2 MIMO for high capacity at venues or special events

## General Specifications

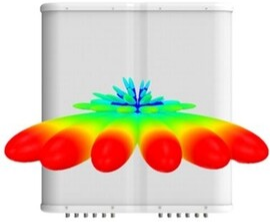
|  |  |
|--|--|
| <b>Antenna Type</b>                    | Multibeam  |
| <b>Band</b>                            | Single band  |
| <b>Color</b>                           | Light Gray (RAL 7035)  |
| <b>Grounding Type</b>                  | RF connector inner conductor and body grounded to reflector and mounting bracket |
| <b>Performance Note</b>                | Outdoor usage  |
| <b>Radome Material</b>                 | Fiberglass, UV resistant   |
| <b>Radiator Material</b>               | Low loss circuit board   |
| <b>Reflector Material</b>              | Aluminum   |
| <b>RF Connector Interface</b>          | 4.3-10 Female  |
| <b>RF Connector Location</b>           | Bottom   |
| <b>RF Connector Quantity, mid band</b> | 12   |
| <b>RF Connector Quantity, total</b>    | 12   |

## Dimensions

|                                 |                    |
|---------------------------------|--------------------|
| <b>Width</b>                    | 970 mm   38.189 in |
| <b>Depth</b>                    | 235 mm   9.252 in  |
| <b>Length</b>                   | 700 mm   27.559 in |
| <b>Net Weight, antenna only</b> | 30 kg   66.139 lb  |

## Array Layout

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Y1/Y2/Y3/Y4/Y5/Y6

Bottom

| Array | Freq (MHz) | Conns | AZ Pan angles |
|-------|------------|-------|---------------|
| Y1    | 1695-2690  | 1-2   | +40°          |
| Y2    | 1695-2690  | 3-4   | +24°          |
| Y3    | 1695-2690  | 5-6   | +8°           |
| Y4    | 1695-2690  | 7-8   | -8°           |
| Y5    | 1695-2690  | 9-10  | -24°          |
| Y6    | 1695-2690  | 11-12 | -40°          |

(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration



## Electrical Specifications

|                                   |                 |
|-----------------------------------|-----------------|
| <b>Impedance</b>                  | 50 ohm          |
| <b>Operating Frequency Band</b>   | 1695 – 2690 MHz |
| <b>Polarization</b>               | ±45°            |
| <b>Total Input Power, maximum</b> | 1,000 W         |

## Electrical Specifications

|                            | Y1-Y6            | Y1-Y6            | Y1-Y6            | Y1-Y6            | Y1-Y6            |
|----------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Frequency Band, MHz</b> | <b>1695–1880</b> | <b>1850–1990</b> | <b>1920–2180</b> | <b>2300–2500</b> | <b>2500–2690</b> |
| <b>RF Port</b>             | P1-P12           | P1-P12           | P1-P12           | P1-P12           | P1-P12           |

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|   |                  |                  |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|------------------|
| <b>Gain, dBi</b>                                    | 20.7             | 21.2             | 21.4             | 22.2             | 22.1             |
| <b>Beam Centers, Horizontal, degrees</b>            | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 |
| <b>Beam Crossover, dB</b>                           | 7                | 8                | 9                | 10               | 13               |
| <b>Beamwidth, Horizontal, degrees</b>               | 12               | 11               | 11               | 10               | 9                |
| <b>Beamwidth, Vertical, degrees</b>                 | 15.4             | 14.2             | 13.6             | 11.6             | 10.7             |
| <b>Beam Tilt, degrees</b>                           | 6                | 6                | 6                | 6                | 6                |
| <b>USLS (First Lobe), dB</b>                        | 15               | 15               | 15               | 15               | 15               |
| <b>Isolation, Cross Polarization, dB</b>            | 25               | 25               | 25               | 25               | 25               |
| <b>Isolation, Beam to Beam, dB</b>                  | 19               | 19               | 19               | 19               | 18               |
| <b>VSWR   Return loss, dB</b>                       | 1.5   14.0       | 1.5   14.0       | 1.5   14.0       | 1.5   14.0       | 1.5   14.0       |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>                | -153             | -153             | -153             | -153             | -153             |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 100              | 100              | 100              | 100              | 100              |

## Electrical Specifications, BASTA

| <b>Frequency Band, MHz</b>                         | <b>1695–1880</b> | <b>1850–1990</b> | <b>1920–2180</b> | <b>2300–2500</b> | <b>2500–2690</b> |
|--|------------------|------------------|------------------|------------------|------------------|
| <b>Gain by all Beam Tilts, average, dBi</b>        | 20               | 20.6             | 20.8             | 21.4             | 21.3             |
| <b>Front-to-Back Total Power at 180° ± 30°, dB</b> | 29               | 28               | 28               | 24               | 21               |
| <b>CPR at Boresight, dB</b>                        | 16               | 23               | 22               | 17               | 20               |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 868.0 N @ 150 km/h (195.1 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, lateral</b> | 265.0 N @ 150 km/h (59.6 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, rear</b>    | 868.0 N @ 150 km/h (195.1 lbf @ 150 km/h) |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                        |

## Packaging and Weights

|                       |                     |
|-----------------------|---------------------|
| <b>Width, packed</b>  | 1084 mm   42.677 in |
| <b>Depth, packed</b>  | 365 mm   14.37 in   |
| <b>Length, packed</b> | 816 mm   32.126 in  |
| <b>Weight, gross</b>  | 43 kg   94.799 lb   |

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## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CHINA-ROHS    | Above maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS          | Compliant/Exempted   |
| UK-ROHS       | Compliant/Exempted   |



## Included Products

|          |   |  |
|----------|---|--|
| BSAMNT-4 | – | Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set. |
|----------|---|--|

## \* Footnotes

|                         |   |
|-------------------------|---|
| <b>Performance Note</b> | Severe environmental conditions may degrade optimum performance |
|-------------------------|---|