

14-port sector antenna, 2x 694–862, 2x 880-960, 2x 1427-2690 and 8x 1695–2690 MHz, 65° HPBW, 6x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- Electrical tilt settings applicable to RF Ports R1, R2, Y2, Y3 & Y5 can be set independently (See Array Layout and RET Table below)
- A common electrical tilt setting is shared by RF Ports Y1/Y4 for MIMO 4X4 purposes

This product will be discontinued on: March 30, 2024

General Specifications

Antenna Type Sector

Band Multiband

Grounding Type RF connector inner conductor and body grounded to reflector and

mounting bracket

Performance Note Outdoor usage | Wind loading figures are validated by wind tunnel

measurements described in white paper WP-112534-EN

Radome Material Fiberglass, UV resistant

Radiator Material Low loss circuit board

Reflector Material Aluminum

RF Connector Interface 4.3-10 Female

RF Connector Location Bottom
RF Connector Quantity, high band 10

RF Connector Quantity, low band 4
RF Connector Quantity, total 14

Remote Electrical Tilt (RET) Information

RET Hardware CommRET v2

RET Interface 8-pin DIN Female | 8-pin DIN Male

RET Interface, quantity 1 female | 1 male

Input Voltage 10-30 Vdc

Internal RET High band (4) | Low band (2)

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Power Consumption, idle state, maximum 1 W

Power Consumption, normal conditions, maximum 8 W

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

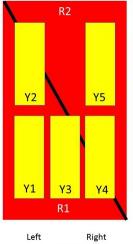
 Width
 395 mm | 15.551 in

 Depth
 228 mm | 8.976 in

 Length
 2688 mm | 105.827 in

Net Weight, without mounting kit 46.6 kg | 102.735 lb

Array Layout



| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID | | | | |
|-------|------------|-------|---------------|---------------------|--|--|--|--|
| R1 | 694-862 | 1-2 | 1 | CPxxxxxxxxxxxxxXR1 | | | | |
| R2 | 880-960 | 3-4 | 2 | CPxxxxxxxxxxxxxxR2 | | | | |
| Y1 | 1695-2690 | 5-6 | 4 | CD:saaaaaaaaaaaaAV1 | | | | |
| Y4 | 1695-2690 | 11-12 | 4 | CPxxxxxxxxxxxxxXY1 | | | | |
| Y3 | 1427-2690 | 9-10 | 3 | CPxxxxxxxxxxxxxXY3 | | | | |
| Y2 | 1695-2690 | 7-8 | 6 | CPxxxxxxxxxxxxxY2 | | | | |
| Y5 | 1695-2690 | 13-14 | 5 | CPxxxxxxxxxxxxxY5 | | | | |

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

Port Configuration

Bottom



Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 1427 – 2690 MHz | 1695 – 2690 MHz | 694 – 862 MHz | 880 –

960 MHz

Polarization ±45°

Total Input Power, maximum 1,000 W @ 50 °C

Electrical Specifications

| • | | | | | | | | |
|------------------------------------|---------|---------|------------|-----------|-----------|-----------|-----------|-------------|
| | R1 | R2 | Y1-Y2/Y4-Y | Y3 | | | | |
| Frequency Band, MHz | 694-862 | 880-960 | 1695-1920 | 1920-2200 | 2300-2500 | 2500-2690 | 1427-1518 | 3 1695-2690 |
| Gain, dBi | 16.3 | 16.5 | 17 | 17.8 | 18.3 | 17.7 | 15.3 | 17.6 |
| Beamwidth, Horizontal, degrees | 65 | 64 | 68 | 64 | 62 | 63 | 68 | 59 |
| Beamwidth, Vertical, degrees | 8.5 | 7.4 | 7.2 | 6.5 | 5.7 | 5.4 | 9.3 | 6.8 |
| Beam Tilt, degrees | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 |
| USLS (First Lobe), dB | 18 | 20 | 16 | 17 | 16 | 16 | 15 | 14 |
| Front-to-Back Ratio at 180°, dB | 35 | 31 | 33 | 35 | 34 | 32 | 32 | 35 |
| Isolation, Cross Polarization, dB | 27 | 27 | 27 | 27 | 27 | 27 | 25 | 25 |

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| Isolation, Inter-band, dB | 28 | 28 | 25 | 25 | 25 | 25 | 28 | 25 |
|--|------------|------------|------------|------------|------------|------------|------------|------------|
| VSWR Return loss, dB | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 | -150 | -150 |
| Input Power per Port at 50°C, maximum, watts | 250 | 250 | 200 | 200 | 200 | 200 | 250 | 200 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 694-862 | 880-960 | 1695-1920 | 1920-2200 | 2300-2500 | 2500-2690 | 1427-1518 1695-2690 | |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Gain by all Beam Tilts, average, dBi | 16.1 | 16.3 | 16.5 | 17.3 | 17.7 | 17.2 | 15 | 16.8 |
| Gain by all Beam Tilts Tolerance, dB | ±0.3 | ±0.5 | ±0.6 | ±0.6 | ±0.7 | ±0.5 | ±0.5 | ±1.1 |
| Gain by Beam Tilt, average, dBi | 2° 15.8 7° 16.1 12° 16.1 | 2° 15.9 7° 16.4 12° 16.4 | 2° 16.3 7° 16.6 12° 16.5 | 2° 17.1 7° 17.4 12° 17.2 | 2° 17.6 7° 17.9 12° 17.4 | 2° 17.1 7° 17.3 12° 16.9 | 2° 14.9 7° 15.1 12° 14.9 | 2° 16.7 7° 17.0 12° 16.7 |
| Beamwidth, Horizontal Tolerance, degrees | ±2.7 | ±2.3 | ±4.9 | ±5.7 | ±5.4 | ±5.4 | ±7.7 | ±8.6 |
| Beamwidth, Vertical Tolerance, degrees | ±0.7 | ±0.4 | ±0.4 | ±0.5 | ±0.3 | ±0.2 | ±0.4 | ±1.4 |
| USLS, beampeak to 20° above beampeak, dB | 18 | 20 | 14 | 16 | 15 | 14 | 11 | 13 |
| Front-to-Back Total Power at 180° ± 30°, dB | 27 | 23 | 24 | 27 | 28 | 27 | 27 | 29 |
| CPR at Boresight, dB | 16 | 17 | 19 | 22 | 19 | 20 | 17 | 20 |
| CPR at Sector, dB | 10 | 8 | 8 | 6 | 9 | 10 | 7 | 4 |

Mechanical Specifications

 Wind Loading @ Velocity, frontal
 574.0 N @ 150 km/h (129.0 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 422.0 N @ 150 km/h (94.9 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 981.0 N @ 150 km/h (220.5 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 590.0 N @ 150 km/h (132.6 lbf @ 150 km/h)

 Wind Speed, maximum
 241 km/h (150 mph)

Packaging and Weights

 Width, packed
 505 mm | 19.882 in

 Depth, packed
 386 mm | 15.197 in

 Length, packed
 2821 mm | 111.063 in

 Weight, gross
 65.7 kg | 144.844 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

Performance Note Severe environmental conditions may degrade optimum performance

