

EEGGV4Q4Q465DR10



32-port sector antenna, 4 x 694-862 MHz (R1,R3), 4 x 880-960 MHz (R2,R4), and 8 x 1695-2690 MHz (Y1-Y4) 65° HPBW, 16 x 2300-3800 MHz (P1,P2), 90° HPBW, 10 x RET

- Two broadband beamforming arrays for 2300-2690 MHz or 3300-3800 MHz, each with a calibration port
- Design for site sharing for both FDD and TDD applications
- New aerodynamic endcaps for wind load optimization
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

General Specifications

| | |
|----------------------------------|--|
| Antenna Type | Sector and beamforming |
| Band | Multiband |
| Calibration Connector Interface | MQ5 |
| Calibration Connector Quantity | 2 |
| Color | Light Gray (RAL 7035) |
| Grounding Type | RF connector inner conductor and body grounded to reflector and mounting bracket |
| Performance Note | Outdoor usage |
| Radome Material | Fiberglass, UV resistant |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female MQ4 MQ5 |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 16 |
| RF Connector Quantity, mid band | 8 |
| RF Connector Quantity, low band | 8 |
| RF Connector Quantity, total | 32 |

Remote Electrical Tilt (RET) Information

| | |
|-------------------------|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 2 female 2 male |
| Input Voltage | 10–30 Vdc |

EEGGV4Q4Q465DR10

| | |
|--|---|
| Internal RET | High band (2) Low band (4) Mid band (4) |
| Power Consumption, active state, maximum | 8 W |
| Power Consumption, idle state, maximum | 1 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|--------------------------|----------------------|
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 2688 mm 105.827 in |
| Net Weight, antenna only | 74.3 kg 163.803 lb |

Array Layout

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

Port Configuration



EEGGV4Q4Q465DR10

Electrical Specifications

| | |
|----------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 2300 – 3800 MHz 694 – 862 MHz 880 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,600 W @ 50 °C |

Electrical Specifications

| | R1,R3 | R2,R4 | Y1-Y4 | Y1-Y4 | Y1-Y4 | P1,P2 | P1,P2 |
|---|------------|------------|------------|------------|------------|------------|------------|
| Frequency Band, MHz | 694–862 | 880–960 | 1695–1920 | 1920–2200 | 2300–2690 | 2300–2690 | 3300–3800 |
| RF Port | 1,2,5,6 | 3,4,7,8 | 9-16 | 9-16 | 9-16 | 17-32 | 17-32 |
| Gain at Mid Tilt, dBi | 15.2 | 15.4 | 16.3 | 17.6 | 17.9 | 14.7 | 15.8 |
| Beamwidth, Horizontal, degrees | 62 | 60 | 71 | 62 | 58 | 92 | 69 |
| Beamwidth, Vertical, degrees | 8.8 | 7.6 | 6.3 | 5.6 | 4.8 | 5.9 | 5.5 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 19 | 19 | 18 | 18 | 21 | 11 | 14 |
| Front-to-Back Ratio at 180°, dB | 29 | 29 | 33 | 32 | 32 | 28 | 29 |
| Front-to-Back Total Power at 180° ± 30°, dB | 21 | 22 | 26 | 27 | 27 | 20 | 21 |
| Coupling level, Amp, Antenna port to Cal port, dB | | | | | | -26 | -26 |
| Coupling level, max Amp Δ, Antenna port to Cal port, dB | | | | | | ±2 | ±2 |
| Coupler, max Amp Δ, Antenna port to Cal port, dB | | | | | | 0.9 | 0.9 |
| Coupler, max Phase Δ, Antenna port to Cal port, degrees | | | | | | 7 | 7 |
| CPR at Boresight, dB | 22 | 22 | 23 | 24 | 21 | 14 | 17 |
| Isolation, Cross Polarization, dB | 28 | 28 | 25 | 25 | 25 | 23 | 23 |
| Isolation, Inter-band, dB | 28 | 28 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Co-polarization, dB | | | | | | 18 | 18 |
| 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 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -130 | -130 |
| Input Power per Port at 50°C, | 250 | 250 | 250 | 250 | 200 | 75 | 75 |

EEGGV4Q4Q465DR10

maximum, watts

Electrical Specifications, Broadcast 65°

| Frequency Band, MHz | 2300–2690 | 3300–3800 |
|---|-----------|-----------|
| Gain, dBi | 17.5 | 17.1 |
| Beamwidth, Horizontal, degrees | 65 | 65 |
| Beamwidth, Horizontal at 10 dB, degrees | 114 | 112 |
| Beamwidth, Vertical, degrees | 5.9 | 5.5 |
| Front-to-Back Total Power at 180° ± 30°, dB | 24 | 24 |
| USLS (First Lobe), dB | 12 | 14 |

Electrical Specifications, Envelope Pattern

| Frequency Band, MHz | 2300–2690 | 3300–3800 |
|---|-----------|-----------|
| Gain, dBi | 20.2 | 21.3 |
| Beamwidth, Horizontal at 10 dB, degrees | 126 | 121 |
| Beamwidth, Vertical at 3 dB, degrees | 5.9 | 5.5 |
| Front-to-Back Total Power at 180° ± 30°, dB | 25 | 25 |
| USLS (First Lobe), dB | 12 | 15 |

Electrical Specifications, Service Beam

| Frequency Band, MHz | 2300–2690 | 3300–3800 |
|---|-----------|-----------|
| Steered 0° Gain, dBi | 20.2 | 21.4 |
| Steered 0° Beamwidth, Horizontal, degrees | 26 | 18 |
| Steered 0° Front-to-Back Total Power at 180° ± 30°, dB | 27 | 29 |
| Steered 0° Horizontal Sidelobe, dB | 12 | 10 |
| Steered 30° Gain, dBi | 19.4 | 19.5 |
| Steered 30° Beamwidth, Horizontal, degrees | 28 | 21 |
| Steered 30° Front-to-Back Total Power at 180° ± 30°, dB | 26 | 25 |

EEGGV4Q4Q465DR10

Electrical Specifications, Soft Split

| | |
|---|-----------|
| Frequency Band, MHz | 2300–2690 |
| Gain, dBi | 19.2 |
| Beamwidth, Horizontal, degrees | 32 |
| Front-to-Back Total Power at 180° ± 30°, dB | 27 |
| Horizontal Sidelobe, dB | 15 |

Mechanical Specifications

| | |
|----------------------------------|---|
| Wind Loading @ Velocity, frontal | 970.0 N @ 150 km/h (218.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 304.0 N @ 150 km/h (68.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,162.0 N @ 150 km/h (261.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 667.0 N @ 150 km/h (149.9 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|----------------|----------------------|
| Width, packed | 565 mm 22.244 in |
| Depth, packed | 318 mm 12.52 in |
| Length, packed | 2809 mm 110.591 in |
| Weight, gross | 95.8 kg 211.203 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| 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. |
| BSAMNT-M4 | – | Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set. |

* Footnotes

| | |
|------------------|---|
| Performance Note | Severe environmental conditions may degrade optimum performance |
|------------------|---|