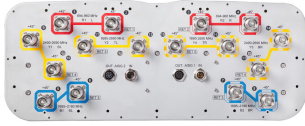


RRVVHHTT-65D-R6



1. 16-port, sector antenna, RF port assignments are as follows: R1+R2 = 694–960, Y2+Y4 = 1695–2690MHz, B1+B2 = 1695–2180 and Y1+Y3 = 2490–2690 MHz, 65° horizontal beamwidth, 6x Internal RET. B1+B2 and Y1+Y3 share common RET, 2.7m

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- A common electrical tilt setting is shared by RF Ports B1+B2 and Y1+Y3
- Electrical tilt settings applicable to RF Ports R1, R2, Y2, Y4 can be set independently (See Array Layout and RET Table below)

OBSOLETE

This product was discontinued on: **March 31, 2023**

Replaced By:

RRZZHHTT-65D-R6 16-port, sector antenna, RF port assignments are as follows: R1+R2 = 694–960, Y2+Y4 = 1427-2690MHz, B1+B2 = 1695–2180 and Y1+Y3 = 2490-2690 MHz, 65° horizontal beamwidth, 6x Internal RET. B1+B2 and Y1+Y3 share common RET, 2.7m

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 | 12 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 16 |

RRVVHHTT-65D-R6

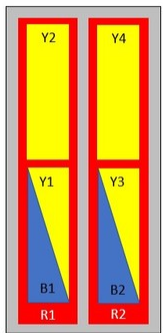
Remote Electrical Tilt (RET) Information

| | |
|--|-----------------------------------|
| 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 |
| Internal RET | High band (4) Low band (2) |
| Power Consumption, idle state, maximum | 1 W |
| Power Consumption, normal conditions, maximum | 8 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, without mounting kit | 53.2 kg 117.286 lb |

Array Layout



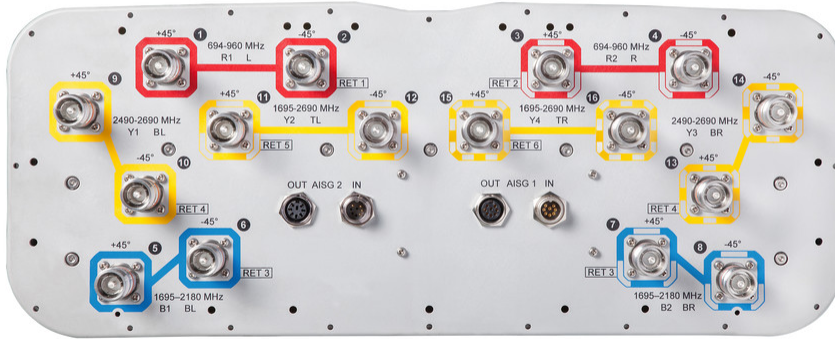
Left Right
Bottom

| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-----------|------------|-------|------------|----------------------|
| R1 | 694-960 | 1-2 | 1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3-4 | 2 | CPxxxxxxxxxxxxxxxxR2 |
| B1 | 1695-2180 | 5-6 | 3 | CPxxxxxxxxxxxxxxxxB1 |
| B2 | 1695-2180 | 7-8 | | |
| Y1 | 2490-2690 | 9-10 | 4 | CPxxxxxxxxxxxxxxxxY1 |
| Y3 | 2490-2690 | 13-14 | | |
| Y2 | 1695-2690 | 11-12 | 5 | CPxxxxxxxxxxxxxxxxY2 |
| Y4 | 1695-2690 | 15-16 | 6 | CPxxxxxxxxxxxxxxxxY3 |

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

Port Configuration

RRVVHHTT-65D-R6



Electrical Specifications

| | |
|-----------------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2180 MHz 1695 – 2690 MHz 2490 – 2690 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 900 W @ 50 °C |

Electrical Specifications

| | R1-R2 | R1-R2 | B1-B2 | B1-B2 | Y1&Y3 | Y2&Y4 | Y2&Y4 |
|--|----------------|----------------|------------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 694–862 | 880–960 | 1920–2180 | 1695–1880 | 2490–2690 | 1695–2180 | 2300–2690 |
| Gain, dBi | 16.2 | 16.7 | 17.3 | 16.8 | 16.9 | 17 | 17.4 |
| Beamwidth, Horizontal, degrees | 68 | 61 | 60 | 58 | 68 | 59 | 62 |
| Beamwidth, Vertical, degrees | 8.1 | 7 | 6.8 | 7.6 | 5.7 | 7.4 | 5.6 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 18 | 20 | 20 | 18 | 17 | 15 | 17 |
| Front-to-Back Ratio at 180°, dB | 31 | 32 | 36 | 35 | 32 | 38 | 33 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 28 | 28 | 28 | 28 |

RRVVHHTT-65D-R6

| | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|
| Isolation, Inter-band, dB | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 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 | -150 | -150 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 250 | 250 | 150 | 250 | 200 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 694–862 | 880–960 | 1920–2180 | 1695–1880 | 2490–2690 | 1695–2180 | 2300–2690 |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Gain by all Beam Tilts, average, dBi | 15.8 | 16.4 | 17 | 16.4 | 16.4 | 16.3 | 16.9 |
| Gain by all Beam Tilts Tolerance, dB | ±0.5 | ±0.5 | ±0.4 | ±0.6 | ±0.6 | ±0.8 | ±0.7 |
| Gain by Beam Tilt, average, dBi | 2° 15.8 7° 15.9 12° 15.5 | 2° 16.5 7° 16.6 12° 16.0 | 2° 16.6 7° 17.1 12° 17.0 | 2° 16.2 7° 16.5 12° 16.4 | 2° 16.1 7° 16.6 12° 16.2 | 2° 16.3 7° 16.5 12° 16.0 | 2° 16.8 7° 17.2 12° 16.4 |
| Beamwidth, Horizontal Tolerance, degrees | ±3.5 | ±5.1 | ±2.9 | ±4.1 | ±5.4 | ±5 | ±7.8 |
| Beamwidth, Vertical Tolerance, degrees | ±0.9 | ±0.4 | ±0.6 | ±0.4 | ±0.3 | ±0.9 | ±0.6 |
| USLS, beampeak to 20° above beampeak, dB | 15 | 16 | 17 | 14 | 16 | 15 | 15 |
| Front-to-Back Total Power at 180° ± 30°, dB | 20 | 23 | 29 | 30 | 25 | 30 | 27 |
| CPR at Boresight, dB | 24 | 24 | 21 | 18 | 16 | 20 | 19 |
| CPR at Sector, dB | 7 | 9 | 8 | 10 | 6 | 7 | 6 |

Mechanical Specifications

| | |
|---|---|
| Mechanical Tilt Range | 0°–12° |
| Wind Loading @ Velocity, frontal | 1,070.0 N @ 150 km/h (240.5 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 375.0 N @ 150 km/h (84.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 880.0 N @ 150 km/h (197.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 608 mm 23.937 in |
| Depth, packed | 352 mm 13.858 in |
| Length, packed | 2880 mm 113.386 in |

RRVVHHTT-65D-R6

Weight, gross

75 kg | 165.346 lb

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. |
| 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