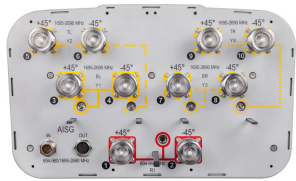


RV4PX310R-E2



10-port sector antenna, 2x 694–960 and 8x 1695–2690 MHz, 65° HPBW, 5x RET with manual override. Bands cascaded SRET.

- Integrated Internal Remote Electrical Tilt (RET), with independent control of electrical tilt with manual override on all arrays
- All Internal RET actuators are connected in “Cascaded SRET” configuration

OBSOLETE

This product was discontinued on: **March 31, 2021**

Replaced By:

RV4-65D-R5

10-port sector antenna, 2x 694–960 and 8x 1695–2690 MHz, 65° HPBW, 5x RET with manual override

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 | 7-16 DIN Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 8 |
| RF Connector Quantity, low band | 2 |
| RF Connector Quantity, total | 10 |

Remote Electrical Tilt (RET) Information

| | |
|--------------------------------|-----------------------------------|
| RET Hardware | CommRET v1 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 1 female 1 male |

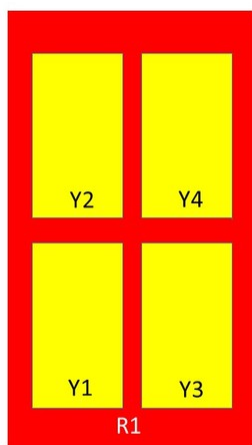
RV4PX310R-E2

| | |
|--|------------------------------|
| Input Voltage | 10–30 Vdc |
| Internal RET | High band (4) Low band (1) |
| Power Consumption, idle state, maximum | 1 W |
| Power Consumption, normal conditions, maximum | 8 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|---|---------------------|
| Width | 350 mm 13.78 in |
| Depth | 208 mm 8.189 in |
| Length | 2533 mm 99.724 in |
| Net Weight, without mounting kit | 39.7 kg 87.523 lb |

Array Layout



| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-------|------------|-------|------------|----------------------|
| R1 | 694-960 | 1-2 | 1 | CPxxxxxxxxxxxxxxxxR1 |
| Y1 | 1695-2690 | 3-4 | 2 | CPxxxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 5-6 | 3 | CPxxxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2690 | 7-8 | 4 | CPxxxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2690 | 9-10 | 5 | CPxxxxxxxxxxxxxxxxY4 |

Left Right
Bottom

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

Electrical Specifications

| | |
|-----------------------------------|---------------------------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,000 W @ 50 °C |

Electrical Specifications

| | | | | | | | |
|----------------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 694–798 | 790–894 | 890–960 | 1695–1880 | 1850–1990 | 1920–2200 | 2300–2690 |
|----------------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|

RV4PX310R-E2

| | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|
| Gain, dBi | 16 | 16.6 | 16.9 | 16.8 | 16.9 | 17.2 | 18 |
| Beamwidth, Horizontal, degrees | 69 | 68 | 66 | 63 | 62 | 63 | 61 |
| Beamwidth, Vertical, degrees | 9.9 | 8.7 | 8.1 | 8.3 | 7.7 | 7.1 | 6 |
| Beam Tilt, degrees | 0–10 | 0–10 | 0–10 | 0–10 | 0–10 | 0–10 | 0–10 |
| USLS (First Lobe), dB | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| Null Fill, dB | -22 | -22 | -22 | -22 | -22 | -22 | -22 |
| Front-to-Back Ratio at 180°, dB | 31 | 34 | 33 | 32 | 39 | 37 | 38 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 30 | 30 | 30 | 30 |
| 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 | 300 | 250 | 250 | 250 | 250 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 694–798 | 790–894 | 890–960 | 1695–1880 | 1850–1990 | 1920–2200 | 2300–2690 |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Gain by all Beam Tilts, average, dBi | 15.8 | 16.4 | 16.8 | 16.3 | 16.6 | 16.9 | 17.6 |
| Gain by all Beam Tilts Tolerance, dB | ±0.4 | ±0.3 | ±0.2 | ±0.5 | ±0.4 | ±0.4 | ±0.5 |
| Gain by Beam Tilt, average, dBi | 0° 15.9 5° 15.8 10° 15.8 | 0° 16.4 5° 16.4 10° 16.4 | 0° 16.7 5° 16.7 10° 16.8 | 0° 16.3 5° 16.3 10° 16.4 | 0° 16.6 5° 16.6 10° 16.7 | 0° 16.9 5° 17.0 10° 16.9 | 0° 17.6 5° 17.6 10° 17.4 |
| Beamwidth, Horizontal Tolerance, degrees | ±1.3 | ±0.7 | ±1.4 | ±2.3 | ±1.8 | ±2.7 | ±5.2 |
| Beamwidth, Vertical Tolerance, degrees | ±0.7 | ±0.5 | ±0.3 | ±0.5 | ±0.3 | ±0.5 | ±0.4 |
| USLS, beampeak to 20° above beampeak, dB | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| Front-to-Back Total Power at 180° ± 30°, dB | 26 | 27 | 27 | 26 | 29 | 27 | 29 |
| CPR at Boresight, dB | 16 | 18 | 17 | 17 | 21 | 19 | 18 |
| CPR at Sector, dB | 12 | 13 | 16 | 13 | 12 | 12 | 10 |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 445.0 N @ 150 km/h (100.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 379.0 N @ 150 km/h (85.2 lbf @ 150 km/h) |

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| | |
|---|---|
| Wind Loading @ Velocity, maximum | 942.0 N @ 150 km/h (211.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 472.0 N @ 150 km/h (106.1 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 436 mm 17.165 in |
| Depth, packed | 320 mm 12.598 in |
| Length, packed | 2720 mm 107.087 in |
| Weight, gross | 63.2 kg 139.332 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CE | Compliant with the relevant CE product directives |
| CHINA-ROHS | Above maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant/Exempted |
| UK-ROHS | Compliant/Exempted |



Included Products

| | | |
|--------------|---|--|
| T-029-GL-E-2 | - | Adjustable Tilt Pipe Mounting Kit for 2.0"-4.5" (50-115mm) OD round members for panel antennas. Includes 2 clamp sets. |
|--------------|---|--|

* Footnotes

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