

CV3PX310R1



8-port sector antenna, 2x 790–960 and 6x 1710–2690 MHz, 65° HPBW, 4x RET with manual override.

- 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

Electrical Specifications

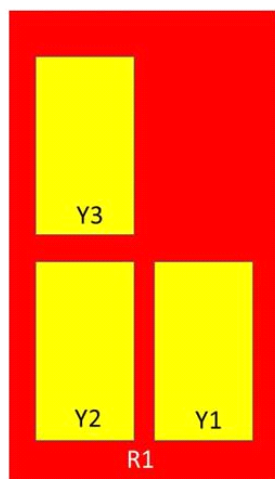
Frequency Band, MHz	790–890	890–960	1710–1920	1920–2170	2300–2690
Gain, dBi	16.6	17.0	16.4	17.1	17.7
Beamwidth, Horizontal, degrees	65	64	61	60	63
Beamwidth, Vertical, degrees	8.9	8.1	8.3	7.4	5.9
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	18	19	16	16	15
Front-to-Back Ratio at 180°, dB	25	28	29	30	30
CPR at Boresight, dB	17	14	17	15	13
CPR at Sector, dB	9	9	7	7	7
Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30
VSWR Return Loss, dB	1.43 15.0	1.43 15.0	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
Input Power per Port, maximum, watts	300	300	250	250	250
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	790–890	890–960	1710–1920	1920–2170	2300–2690
Gain by all Beam Tilts, average, dBi	16.4	16.8	16.2	16.8	17.3
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.2	±0.3	±0.6	±0.5
Gain by Beam Tilt, average, dBi	0° 16.4 5° 16.4 10° 16.5	0° 16.8 5° 16.8 10° 16.7	0° 16.3 5° 16.2 10° 16.2	0° 16.8 5° 16.8 10° 16.9	0° 17.6 5° 17.4 10° 17.1
Beamwidth, Horizontal Tolerance, degrees	±1.8	±1.5	±2.6	±2.7	±5
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.2	±0.6	±0.6	±0.6
USLS, beampeak to 20° above beampeak, dB	18	18	18	18	17
Front-to-Back Total Power at 180° ± 30°, dB	24	27	23	25	27
CPR at Boresight, dB	18	15	19	18	17
CPR at Sector, dB	8	9	7	4	7

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	790-960	1-2	1	ARxxxxxxxxxxxxxxxxxx1
Y1	1710-2690	3-4	2	ARxxxxxxxxxxxxxxxxxx2
Y2	1710-2690	5-6	3	ARxxxxxxxxxxxxxxxxxx3
Y3	1710-2690	7-8	4	ARxxxxxxxxxxxxxxxxxx4

Left Bottom Right

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

General Specifications

Operating Frequency Band	1710 – 2690 MHz 790 – 960 MHz
Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	8
RF Connector Quantity, low band	2
RF Connector Quantity, high band	6
RF Connector Interface	7-16 DIN Female
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radome Material	ASA, UV stabilized
RF Connector Location	Bottom
Wind Loading, frontal	1237.0 N @ 150 km/h 278.1 lbf @ 150 km/h
Wind Loading, lateral	478.0 N @ 150 km/h 107.5 lbf @ 150 km/h
Wind Speed, maximum	200 km/h 124 mph

Dimensions

Length	2533.0 mm 99.7 in
---------------	---------------------

CV3PX310R1

Width	354.0 mm 13.9 in
Depth	210.0 mm 8.3 in
Net Weight, without mounting kit	33.0 kg 72.8 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (3) Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

Packed Dimensions

Length	2720.0 mm 107.1 in
Width	420.0 mm 16.5 in
Depth	320.0 mm 12.6 in
Shipping Weight	50.0 kg 110.2 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
ISO 9001:2015
China RoHS SJ/T 11364-2014
CE

Classification

Compliant by Exemption
Designed, manufactured and/or distributed under this quality management system
Above Maximum Concentration Value (MCV)
Compliant with the relevant CE product directives



Included Products

T-029-GL-E — Adjustable Tilt Pipe Mounting Kit for 2.0"-4.5" (60-115mm) OD round members for panel antennas. Includes 2 clamp sets.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance