Product Specifications

CX14OMI236-1C NWAV[™] X-Pol OMNI Cantenna | 14-Port | 2.98 cu. ft | 360°



14-Port 2.98 cu. ft 360° Cantenna with RET-controlled from 1695–2700 MHz (2) 698–960 MHz & (4) 1695–2700 MHz & (4) 3550–3700 MHz & (4) 5150–5925 MHz

- X-Pol, small cell, Quasi OMNI antenna
- Suitable for pole or building mount
- 2x2 MIMO low-band, 4x4 MIMO for each of AWS/PCS/CBRS/LAA
- Internal beam combining
- Dependent RET control for 1695–2700 MHz frequencies
- Suitable for LTE/UMTS/CDMA/GSM technologies
- Cost-effective solution for neutral host locations





| Electrical specification (min./max.) | Ports 1, 2 | | Ports 3, 4, 5, 6 | | | | | |
|--|----------------|-------------|------------------|--------------------|---------------|---------------|---------------|---------------|
| Frequency bands, MHz | 698– 798 | 824– 894 | 880– 960 | 1695– 1880 | 1850– 1990 | 1920– 2180 | 2300– 2500 | 2500– 2690 |
| Polarization | ± 45° | | | ± 45° | | | | |
| Average gain over all tilts, dBi | 4.8 | 4.9 | 5.2 | 9.0 | 9.2 | 9.9 | 10.1 | 9.9 |
| Horizontal beamwidth (HBW), degrees ¹ | 360° | | | 360° | | | | |
| Vertical beamwidth, (VBW), degrees ¹ | 37° | 30° | 26° | 15.4° | 14.4° | 13.5° | 12.0° | 11.0° |
| Electrical downtilt (EDT) range, degrees | 0° (FET) | | 2-8° (RET) | | | | | |
| X polar isolation, P2P, dB ¹ | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Max. VSWR/return loss, dB | 1.5:1/ -14.0 | | | 1.5:1/ -14.0 | | | | |
| Max. PIM (3rd order 2x20 W carrier dBc) | -153 | | | -153 | | | | |
| Maximum input power port, watts | 250 | | | 150 | | | | |
| Total max. composite power, watts | 900 | | | | | | | |
| Electrical specification(Min/Max) | Ports 7,8,9,10 | | | Ports 11,12, 13,14 | | | | |
| Frequency bands, MHz | 3550–3700 | | 5150– 5250 | 5250– 5350 | 5470– 5725 | 5725– 5850 | 5850– 5925 | |
| Polarization | ± 45° | | ± 45° | | | | | |
| Average gain over all tilts, dBi | 5.0 | | 5.5 | 5.7 | 5.5 | 5.5 | 5.6 | |
| Horizontal beamwidth (HBW), degrees ¹ | | | 360° | | | | | |
| Vertical beamwidth (VBW), degrees ¹ | 28° | | 24° | 24° | 20° | 14° | 18° | |
| Electrical downtilt (EDT) range, degrees | 0, | | | 0° (F | (FET) | | | |
| X polar isolation, P2P, dB1 | 25 | | 25 | | | | | |
| Max. VSWR/return loss, dB | 1.5:1/ -14.0 | | | 1.5:1/ -14.0 | | | | |
| Max. PIM (3rd Order 2x20W carrier dBc) | N/A | | | | | | | |
| Maximum input power port | 10 | | | .5 | 0.125 | .125 | 0.5 | 0.5 |

¹ Typical value over frequency and tilt

*USL at 5150-5925 MHz < -15dB at > 30° above horizon

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| Mechanical specifications | | | | |
|--|-----------------------------------|--|--|--|
| Dimensions height/diameter, inches (mm) | 33.5/14 (947/355) | | | |
| Volume (cubic feet) | 2.98 | | | |
| No. of RF input ports, connector type and location | 14 x 4.3-10 female, bottom | | | |
| RF connector torque | 96 lbf·in (10.85 N m or 8 lbf·ft) | | | |
| Net antenna weight, lb (kg) | 35 (15.9) | | | |
| Rated wind survival speed, mph (km/h) | 150 (241) | | | |
| Frontal wind loading @ 160 km/h, lbf (N) | 58.7 (261.2) | | | |
| Equivalent flat plate @100 mph and Cd=2, sq. ft | 1.17 | | | |



| Ordering information | | |
|--------------------------|--|--|
| Antenna model | Description | |
| CX14OMI236-1C | 2F X-Pol 14P OMNI 360°, HB 2-8° RET, 4.3-10 | |
| Mounting bracket options | See small cell mounting bracket options http://info.jmawireless.com/ret-antenna-matrix | |

Product Specifications

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- All CX* antennas come with the bottom mount bracket (marked as 1) factory installed (all factory testing is done with bracket attached)
- Hardware is included with each antenna to connect bottom bracket to different mounting systems
- JMA cylinder brackets are compatible with bottom mount via universal cantenna mount sleeve (marked as 2) included with JMA cylinder mounting systems.

Mounting details

Example bracket configuration



Rooftop Ballasted Mounting System

Sold separately:

Universal cantenna mount sleeve for JMA cylinder brackets (SC-BKT-SLA)

SC-BKT-RTB-(color)

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Remote electrical tilt (RET 1000) information

| RET location | Integrated into antenna |
|---|--|
| RET interface connector type | 8-pin AISG connector per IEC 60130-9 |
| RET Connector torque | Min5 Nm to max 1.0 Nm (hand pressure & finger tight connector) |
| RET interface connector quantity | 2 pairs of AISG male/female connectors |
| RET interface connector location | Bottom of the antenna |
| Total No. of internal RETs high bands | 1 |
| RET input operating voltage, vdc | 10–30 |
| RET max power consumption, idle state, W | ≤ 2.0 |
| RET max power consumption, normal operating conditions, W | ≤ 13.0 |
| RET communication protocol | AISG 2.0/ 3GPP |
| | |

RET topology

A single RET device controls all 3 sectors via the designated external AISG connector as shown below



| Array ID | Band | RF Port |
|----------|-----------|---------|
| R1 | 698–960 | 1–2 |
| Y1 | 1695–2700 | 3–4 |
| Y2 | 1695–2700 | 5–6 |
| V1 | 3550-3700 | 7–8 |
| V2 | 3550-3700 | 9–10 |
| V3 | 5150-5925 | 11–12 |
| V4 | 5150-5925 | 13–14 |



