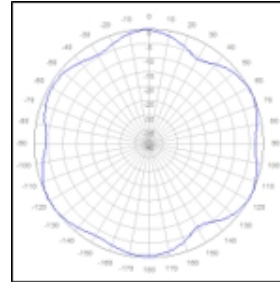


# CX14OMI236-1C

## NWAV™ X-Pol OMNI Cantenna

**14-port 2.98 cu. ft 360° antenna with RET-controlled HB: 2 ports 698-960 MHz, 4 ports 1695-2700 MHz, 4 ports 3550-3700 MHz, and 4 ports 5150-5925 MHz**

- X-Pol, Small Cell Quasi OMNI antenna
- Suitable for pole or building mount
- 2x2 MIMO low-band, 4x4 MIMO for each 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



Omni clover



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	360°			360°				
Vertical beamwidth (VBW), degrees <sup>1</sup>	37°	30°	26°	15.4°	14.4°	13.5°	12.0°	11.0°
Electrical downtilt (EDT) range, degrees	0° (FET)			2-8° (RET)				
Cross-polar isolation, port-to-port, dB <sup>1</sup>	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, 2x20W carrier, dBc	-153			-153				
Maximum input power per port, watts	250			150				
Maximum 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	360°		360°				
Vertical beamwidth (VBW), degrees <sup>1</sup>	28°	24°	24°	20°	14°	18°	
Electrical downtilt (EDT) range, degrees	0° (FET)		0° (FET)				
Cross-polar isolation, port-to-port, dB <sup>1</sup>	25		25				
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0				
Max PIM, 2x20W carrier, dBc	N/A		N/A				
Maximum total input power, watts	50	0.5	0.125	0.125	0.5	0.5	

<sup>1</sup> Typical value over frequency and tilt.

Note: To comply with FCC Title 47 Part 15 U-NII 1, the vertical beam upper side lobe at 5150-5250 MHz < -12 dB at > 30° above horizon

Mechanical specifications	
Dimensions height/diameter, inches (mm)	35.4/ 14 (746.8/ 355)
Antenna 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

Front view	End view
	<p>The 0 degree reference arrow corresponds to the 0 degree position in the antenna pattern file. Each antenna pattern file uses a top down orientation view (the patterns are viewed from the top of the antenna looking down).</p>

Notes on cylinder brackets	Mounting details
<ul style="list-style-type: none"> <li>All CX* antennas come with the bottom mount bracket (marked as <b>A</b>) factory-installed (all factory testing is done with bracket attached)</li> <li>Hardware is included with each antenna to connect bottom bracket to different mounting systems.</li> <li>JMA cylinder brackets are compatible with bottom mount via universal antenna mount sleeve (marked as <b>B</b>), sold separately.</li> <li>To mitigate potential risk of PIM issues, the recommended torque values need to be applied.</li> </ul>	<p><b>Included with antenna:</b> 7/8" bolt, washer, nut (Torque to 202 lbf-ft)</p> <p><b>Warning:</b> Removal of antenna bracket voids antenna warranty.</p> <p><b>Included with SC-BKT-SLA:</b> 6X 5/16-18 nuts (Torque to 11 lbf-ft)</p> <p><b>Sold separately:</b> Universal antenna mount sleeve for JMA cylinder brackets (SC-BKT-SLA)</p>

Small Cell solutions and mounting systems (sold separately)			
<a href="#">Side Arm Mounting System</a>	SC-BKT-SA-(color)	<a href="#">Wide Diameter Pole</a>	SC-BKT-WTPE-(color)
<a href="#">Steel Pole Mounting System</a>	SC-BKT-SLA (color)		

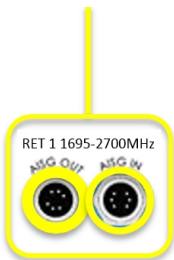
Ordering information	
<b>Antenna model</b>	<b>Description</b>
CX14OMI236-1C	2F X-Pol 14-port OMNI 360°, 1695-2700 MHz 2-8° RET, 4.3-10
<b>Optional accessories</b>	
<a href="#">AISG cables</a>	M/F cables for AISG connections
<a href="#">PCU-1000 RET controller</a>	Stand-alone controller for RET control and configurations

Remote electrical tilt (RET 1000) information	
<b>RET location</b>	Integrated into antenna
<b>RET interface connector type</b>	8-pin AISG connector per IEC 60130-9
<b>RET connector torque</b>	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
<b>RET interface connector quantity</b>	2 pairs of AISG male/female connectors
<b>RET interface connector location</b>	Bottom of the antenna
<b>Total no. of internal RETs high bands</b>	1
<b>RET input operating voltage, vdc</b>	10-30
<b>RET max power consumption, idle state, W</b>	≤ 2.0
<b>RET max power consumption, normal operating conditions, W</b>	≤ 13.0
<b>RET communication protocol</b>	AISG 2.0 / 3GPP

### RET topology

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

RET device	Band	RF port
1	1695-2700	3-6



### Array topology

<p>7 sets of radiating arrays</p> <p>R1: 698-960 MHz  Y1: 1695-2700 MHz  Y2: 1695-2700 MHz  P1: 3550-3700 MHz  P2: 3550-3700 MHz  O1: 5150-5925 MHz  O2: 5150-5925 MHz</p>	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>698-960</td> <td>1-2</td> </tr> <tr> <td>1695-2700</td> <td>3-4</td> </tr> <tr> <td>1695-2700</td> <td>5-6</td> </tr> <tr> <td>3550-3700</td> <td>7-8</td> </tr> <tr> <td>3550-3700</td> <td>9-10</td> </tr> <tr> <td>5150-5925</td> <td>11-12</td> </tr> <tr> <td>5150-5925</td> <td>13-14</td> </tr> </tbody> </table>	Band	RF port	698-960	1-2	1695-2700	3-4	1695-2700	5-6	3550-3700	7-8	3550-3700	9-10	5150-5925	11-12	5150-5925	13-14	
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