

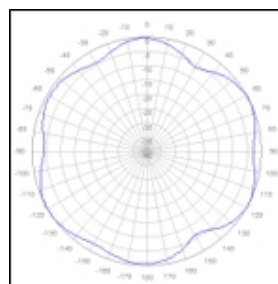


CX16OMI236-1C

NWAV™ X-Pol OMNI Antenna

16-port 2 ft 360° antenna with RET-controlled HB: 4 ports 698-960 MHz, 4 ports 1695-2690 MHz, 4 ports 3550-3700 MHz, and 4 ports 5150-5925 MHz

- X-Pol, Small Cell, hex-port antenna
- Suitable for pole or building mount
- 4x4 MIMO low-band, 4x4 MIMO for each AWS/PCS/CBRS/LAA
- Internal beam combining
- Dependent RET control for 1695-2690 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, 3, 4				Ports 5, 6, 7, 8			
Frequency bands, MHz	698-798	824-960	1695-1880	1850-1990	1920-2180	2300-2500	2500-2690	
Polarization	± 45°				± 45°			
Average gain over all tilts, dBi	3.5	3.5	9.0	9.2	9.9	10.1	9.9	
Horizontal beamwidth (HBW), degrees	360°				360°			
Vertical beamwidth (VBW), degrees ¹	80°	65°	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 ¹	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				125			
Maximum composite power, watts	900							

Electrical specification (min/max)	Ports 9, 10, 11, 12			Ports 13, 14, 15, 16				
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 ¹	28°			24°	24°	20°	14°	18°
Electrical downtilt (EDT) range, degrees	0° (FET)			0° (FET)				
Cross-polar isolation, port-to-port, dB ¹	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	N/A			N/A				
Maximum total input power, watts	50			0.5	0.125	0.125	0.5	0.5

¹ 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	16 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"> All CX* antennas come with the bottom mount bracket (marked as A) 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 B), sold separately. To mitigate potential risk of PIM issues, the recommended torque values need to be applied. 	<p>Included with antenna: 7/8" bolt, washer, nut (Torque to 202 lbf-ft)</p> <p>Warning: Removal of antenna bracket voids antenna warranty.</p> <p>Included with SC-BKT-SLA: 6X 5/16-18 nuts (Torque to 11 lbf-ft)</p> <p>Sold separately: Universal antenna mount sleeve for JMA cylinder brackets (SC-BKT-SLA)</p>

Small Cell solutions and mounting systems (sold separately)			
Side Arm Mounting System	SC-BKT-SA-(color)	Wide Diameter Pole	SC-BKT-WTPE-(color)
Steel Pole Mounting System	SC-BKT-SLA (color)		

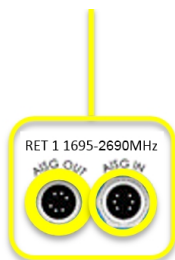
Ordering information	
Antenna model	Description
CX16OMI236-1C	2F X-Pol 16-port OMNI 360°, 1695-2690 MHz 2-8° RET, 4.3-10
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations

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	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
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:

RET device	Band	RF port
1	1695-2690	5-8



Array topology

8 sets of radiating arrays R1: 698-960 MHz R2: 698-960 MHz Y1: 1695-2690 MHz Y2: 1695-2690 MHz P1: 3550-3700 MHz P2: 3550-3700 MHz O1: 5150-5925 MHz O2: 5150-5925 MHz	<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>698-960</td><td>3-4</td></tr> <tr><td>1695-2690</td><td>5-6</td></tr> <tr><td>1695-2690</td><td>7-8</td></tr> <tr><td>3550-3700</td><td>9-10</td></tr> <tr><td>3550-3700</td><td>11-12</td></tr> <tr><td>5150-5925</td><td>13-14</td></tr> <tr><td>5150-5925</td><td>15-16</td></tr> </tbody> </table>	Band	RF port	698-960	1-2	698-960	3-4	1695-2690	5-6	1695-2690	7-8	3550-3700	9-10	3550-3700	11-12	5150-5925	13-14	5150-5925	15-16	
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