



# CX20OMI236-3Cxy

NWAV™ Cylinder Antenna

20-port cylinder antenna 698-4200 MHz:



4 ports 698-960, 8 ports 1695-2690 MHz, and 8 ports 3400-4200 MHz

- Small Cell Omni antenna
- Supports deployments with 4x4 MIMO capability with all bands
- Excellent cross-polar discrimination for enhanced MIMO performance
- Center-mounted lift ring for easy installations
- Future-proof design to support up to 4200 MHz
- Optimal 3400-4200 MHz gain to realize EIRP limit



NWAV™

	Low band		Mid band				3.5 GHz			
Frequency bands, MHz	(2x) 698-960		(4x) 1695-2690				(4x) 3400-4200			
Array	■ R1	■ R2	■ Y1	■ Y2	■ Y3	■ Y4	■ P1	■ P2	■ P3	■ P4
Connector	4 PORTS		8 PORTS				8 PORTS			
Polarization	XPOL		XPOL				XPOL			
Horizontal beamwidth (HBW), degrees <sup>1</sup>	360		360				360			
Electrical downtilt (EDT), degrees <sup>1</sup>	0		2, 6, 10				0			
Configuration	Quasi omni antenna									
Connector type	(20x) 4.3-10 female									
Dimensions, in. (mm)	24.0/ 14.6 (609.6/ 370.8)									
Maximum composite power, watts (all ports)	1000									

Radome color	Gray (Pantone 420C)					Brown (Pantone 476C)				
										

### Electrical specifications Low Band ■ R1 ■ R2

Frequency range, MHz	(2x) 698-960
Polarization	(2x) ± 45°
Gain, BASTA, dBi	2.4 ± 0.5
Gain, MAX, dBi	2.8
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	82.4
Electrical downtilt (EDT), degrees	0
Impedance, ohms	50
VSWR	≤ 1.5:1
PIM, 2x20W carrier, dBc	< -153
Isolation, intra-band, dB	>25



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### Electrical specifications Low Band ■ R1 ■ R2

Isolation, inter-band, dB	>28
Input power per port, watts	150

### Electrical specifications Mid Band ■ Y1 ■ Y2 ■ Y3 ■ Y4

Frequency range, MHz	(4x) 1695-2690			
Frequency sub-range, MHz	1695-1880	1850-1990	1920-2200	2300-2690
Polarization	(4x) ± 45°			
Gain, BASTA, dBi	6.5 ± 0.5	6.6 ± 0.4	7.5 ± 0.7	7.7 ± 0.5
Gain, MAX, dBi	7.0	7.1	8.0	8.4
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360	360	360	360
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	33.7	27.7	23.0	21.8
Electrical downtilt (EDT), degrees	2 or 6 or 10			
Impedance, ohms	50			
VSWR	≤ 1.5:1			
PIM, 2x20W carrier, dBc	< -153			
Isolation, intra-band, dB	>25			
Isolation, inter-band, dB	>28			
Input power per port, watts	125			

### Electrical specification 3400-4200 MHz ■ P1 ■ P2 ■ P3 ■ P4

Frequency range, MHz	(4x) 3400-4200
Polarization	(4x) ± 45°
Gain, BASTA, dBi	7.8 ± 0.5
Gain, MAX, dBi	8.4
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	19.8 ± 2
Electrical downtilt (EDT), degrees	0
Impedance, ohms	50
VSWR	≤ 1.5:1
PIM, 2x20W carrier, dBc	<-145
Isolation, intra-band, dB	>25
Isolation, inter-band, dB	>28
Input power per port, watts	100

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



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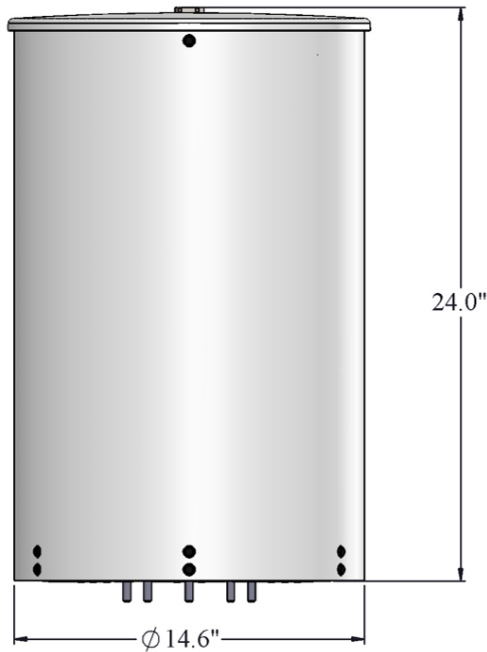
## NWAV™ Cylinder Antenna

Mechanical specifications	
Dimensions height/diameter, inches (mm)	24.0/ 14.6 (609.6/ 370.8)
Antenna volume (cubic feet)	2.32
No. of RF input ports, connector type, and location	20 x 4.3-10 RF, bottom
RF connector torque	96 lbf-in (10.85 N·m or 8 lbf-ft)
Net antenna weight, lb (kg)	36 (16.32)
Rated wind survival speed, mph (km/h)	150 (241)
Frontal wind loading @ 160 km/h, lbf (N)	30 (133)
Equivalent flat plate @ 100 mph and Cd=2, sq ft	1.17/0.69

### Array topology

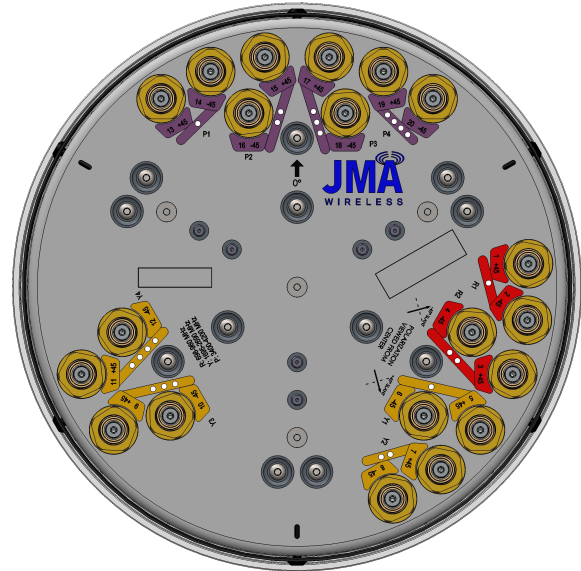
10 sets of radiating arrays  R1: 698-960 MHz R2: 698-960 MHz Y1: 1695-2690 MHz Y2: 1695-2690 MHz Y3: 1695-2690 MHz Y4: 1695-2690 MHz P1: 3400-4200 MHz P2: 3400-4200 MHz P3: 3400-4200 MHz P4: 3400-4200 MHz	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>698-960</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>1695-2690</td> <td>9-10</td> </tr> <tr> <td>1695-2690</td> <td>11-12</td> </tr> <tr> <td>3400-4200</td> <td>13-14</td> </tr> <tr> <td>3400-4200</td> <td>15-16</td> </tr> <tr> <td>3400-4200</td> <td>17-18</td> </tr> <tr> <td>3400-4200</td> <td>19-20</td> </tr> </tbody> </table>	Band	RF port	698-960	1-2	698-960	3-4	1695-2690	5-6	1695-2690	7-8	1695-2690	9-10	1695-2690	11-12	3400-4200	13-14	3400-4200	15-16	3400-4200	17-18	3400-4200	19-20	
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	3400-4200	19-20																						

Front view



End view

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).

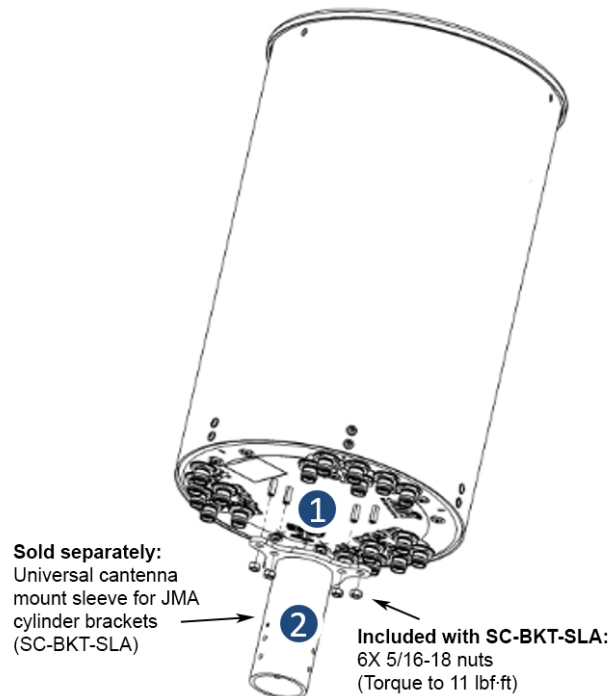


End view details: 6 stud bolts for direct mount to the Universal Sleeve (SC-BKT-SLA)

**Notes on mounting brackets**

- The antenna comes with the bottom mount studs (marked as **1**) factory-installed.
- JMA cylinder brackets are compatible with bottom mount via universal antenna mount sleeve (marked as **2**) (SC-BKT-SLA), sold separately with JMA cylinder mounting systems.
- To mitigate potential risk of PIM issues, the recommended torque values need to be applied.

**Example bracket configuration**





# CX20OMI236-3Cxy

## NWAV™ Cylinder Antenna

### Ordering information

Antenna model		Description			
CX20OMI236-3Cxy		2ft 20 Port OMNI antenna 4LB 8MB 8CBRS			
xy= fixed electrical tilt for 1695-2690 MHz in degrees x= arrays Y1 & Y3 y= arrays Y2 & Y4		xy=2, 6, or 10 deg FET per 4 ports 1695-2690 MHz x= FET value for ports 5, 6, 9, 10 y= FET value for ports 7, 8, 11, 12			
Model	Radome color	Tilt configuration			Radome color and tilt configuration description
		R1 R2	Y1-Y4 (x,y)	P1-P4	
CX20OMI236-3C22	GRAY (G)	0	2°	0	2ft 20 Port antenna with GRAY Radome and 2° & 2° tilt settings
CX20OMI236-3C26		0	Y1&Y3=2°, Y2&Y4=6°	0	2ft 20 Port antenna with GRAY Radome and 2° & 6° tilt settings
CX20OMI236-3C210		0	Y1&Y3=2°, Y2&Y4=10°	0	2ft 20 Port antenna with GRAY Radome and 2° & 10° tilt settings
CX20OMI236-3C66		0	6°	0	2ft 20 Port antenna with GRAY Radome and 6° & 6° tilt settings
CX20OMI236-3C610		0	Y1&Y3=6°, Y2&Y4=10°	0	2ft 20 Port antenna with GRAY Radome and 6° & 10° tilt settings
CX20OMI236-3C1010		0	10°	0	2ft 20 Port antenna with GRAY Radome and 10° & 10° tilt settings
CX20OMI236-3CW22	BROWN (W)	0	2°	0	2ft 20 Port antenna with BROWN Radome and 2° & 2° tilt settings
CX20OMI236-3CW26		0	Y1&Y3=2°, Y2&Y4=6°	0	2ft 20 Port antenna with BROWN Radome and 2° & 6° tilt settings
CX20OMI236-3CW210		0	Y1&Y3=2°, Y2&Y4=10°	0	2ft 20 Port antenna with BROWN Radome and 2° & 10° tilt settings
CX20OMI236-3CW66		0	6°	0	2ft 20 Port antenna with BROWN Radome and 6° & 6° tilt settings
CX20OMI236-3CW610		0	Y1&Y3=6°, Y2&Y4=10°	0	2ft 20 Port antenna with BROWN Radome and 6° & 10° tilt settings
CX20OMI236-3CW1010		0	10°	0	2ft 20 Port antenna with BROWN Radome and 10° & 10° tilt settings

### 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)		