

### NWAV™ Cylinder Antenna

### 16-port cylinder antenna 698-4200 MHz:

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

- Small Cell multi-port cylinder antenna, suitable for multi-carrier applications
- 4x4 MIMO-capable 698-2690 MHz, 8x8-capable for 3700-4200 MHz
- · Increased CBRS/LS6 gain for improved coverage
- Symmetrical pattern performance across all 1695-2690 MHz ports
- Excellent cross-polar discrimination for MIMO performance



Electrical specification (min/max)	Ports 1, 2, 3, 4			Ports 5, 6, 7, 8				
Frequency bands, MHz	698-798	824-894	880-960	1695- 1880	1850- 1990	1920- 2180	2300- 2400	2496- 2690
Polarization	± 45°			± 45°				
Gain, dBi (max)	3.4	3.6	3.6	9.8	10.1	10.5	10.8	11.0
Gain, dBi (average)	2.7	2.8	2.8	9.4	9.7	9.9	10.1	10.7
Horizontal beamwidth (HBW), degrees <sup>1</sup>	360°			360°				
Vertical beamwidth (VBW), degrees <sup>1</sup>	79	69	69	15	14.0	13.0	12.0	11.0
Cross-polar discrimination over 360°1	15.5	14.0	14.0	18.0	18.0	17.0	19.0	17.7
Electrical downtilt (EDT), degrees	0°			2° or 5° or 8° or 12°				
Cross-polar isolation, dB <sup>1</sup>	25		25					
Max VSWR / return loss, dB		1.5:1 / -14.0		1.5:1/-14.0				
Max PIM, 3rd order 2x20W carrier, dBc	-153		-153					
Maximum input power port, watts	150		125					

Electrical specification (min/max)	Ports 9, 10, 11, 1	12, 13, 14, 15, 16		
Frequency bands, MHz	3400-3700	3700-4200		
Polarization	± 4	± 45°		
Gain, dBi (max)	8.9	9.3		
Gain, dBi (average)	8.1	8.3		
Horizontal beamwidth (HBW), degrees <sup>1</sup>	36	360°		
Vertical beamwidth (VBW), degrees <sup>1</sup>	24	20		
Cross-polar discrimination over 360°1	18.0	14.2		
Electrical downtilt (EDT), degrees	0°	0°		
Cross-polar isolation, dB <sup>1</sup>	2	25		
Max VSWR / return loss, dB	1.5:1 / -14.0	1.5:1 / -14.0		
Maximum input power port, watts	10	100		
Maximum composite power, watts (all ports)	10	1000		

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



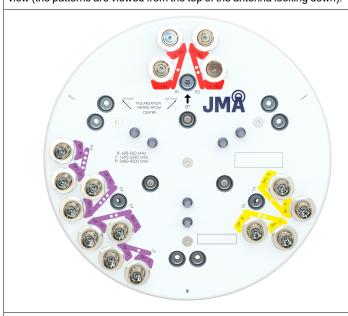
Mechanical specifications			
Dimensions height/diameter, inches (mm)	24.0/ 14.6 (609.6/ 370.8)		
Antenna volume (cubic feet)	2.91		
No. of RF input ports, connector type, and location	16 x 4.3-10 female, bottom		
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)		
Net antenna weight, lb (kg)	30 (13.6)		
Rated wind survival speed, mph (km/h)	150 (241)		
Frontal wind loading @ 160 km/h, lbf (N)	47.6 (211)		
Equivalent flat plate @ 100 mph and Cd=2, sq ft	1.09		

# 24.0"

Front 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** 



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

Ordering information		
Antenna model	Description	
CX16OMI236-2Cx (x represents the fixed down tilt value for 1695-2690 MHz	2ft 16 Port OMNI antenna 4LB 4MB 8CBRS/LS6	
	x= 2, 5, 8, or 12 deg per 4 ports 1695-2690 MHz x= FET value for ports 5, 6, 7, 8 (Y1 & Y2)	



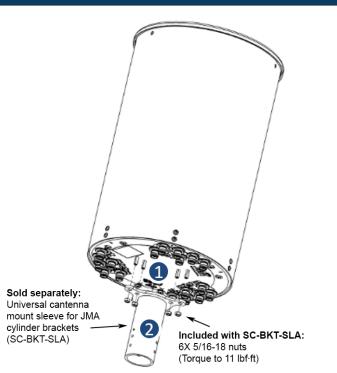
# CX16OMI236-2Cx

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## 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 cantenna 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**



### 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)

### Array topology

8 sets of radiating arrays

R1: 698-960 MHz R2: 698-960 MHz Y1: 1695-2690 MHz Y2: 1695-2690 MHz P1: 3400-4200 MHz P2: 3400-4200 MHz P3: 3400-4200 MHz P4: 3400-4200 MHz

Band	RF port		
698-960	1, 2, 3, 4		
1695-2690	5, 6, 7, 8		
3400-4200	9, 10, 11, 12, 13, 14, 15, 16		

