JMA WIRELESS

CX18OMI236-1Cxy

NWAV™ Cylinder Antenna

18-port cylinder antenna 698-5925 MHz:

4 ports 698-960, 8 ports 1695-2690 MHz, 4 ports 3400-4200 MHz, and 2 ports 5150-5925 MHz

- Small Cell multi-port cylinder antenna, suitable for multi-carrier applications
- 4x4 MIMO-capable 698-4200 MHz
- Symmetrical pattern performance across all 1695-2690 MHz ports
- Excellent cross-polar discrimination for MIMO performance

nwav

Electrical specification (min/max)	Ports 1, 2, 3, 4			Ports 5, 6, 7, 8, 9, 10, 11, 12				
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)	3.0	3.2	3.4	7.1	7.3	7.8	7.7	8.6
Gain, dBi (average)	2.5	2.7	2.9	6.5	6.7	7.1	7.4	8.1
Horizontal beamwidth (HBW), degrees[1]	360°			360°				
Vertical beamwidth (VBW), degrees[1]	83°	77°	65°	30°	28°	26°	24°	22°
Cross-polar discrimination over 360°[1]	16.4	15.5	14.6	16.5	18.3	18.6	17.7	18.4
Electrical downtilt (EDT), degrees	0°			2° or 4° or 6° per 4 ports (5-8, 9-12)				
Cross-polar isolation, dB[1]	30			27				
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 13, 14, 15, 16		Ports 17, 18
Frequency bands, MHz	3400-3700	3700-4200	5150-5925
Polarization	± 45°		± 45°
Gain, dBi (max)	5.4	5.5	5.1
Gain, dBi (average)	4.9	4.7	4.6
Horizontal beamwidth (HBW), degrees[1]	360°		360°
Vertical beamwidth (VBW), degrees[1]	31°	35°	21°
Cross-polar discrimination over 360°[1]	15.6	13.0	12.5
Electrical downtilt (EDT), degrees	0°	0°	0°
Cross-polar isolation, dB[1]	28		24
Max VSWR / return loss, dB	1.5:1 / -14.0	1.5:1 / -14.0	1.5:1 / -14.0
Max PIM, 2x20W carrier, dBc	N/A		
Maximum input power port, watts	100		50
Maximum composite power, watts (all ports)	1000		

[1] Typical value over frequency and tilt.

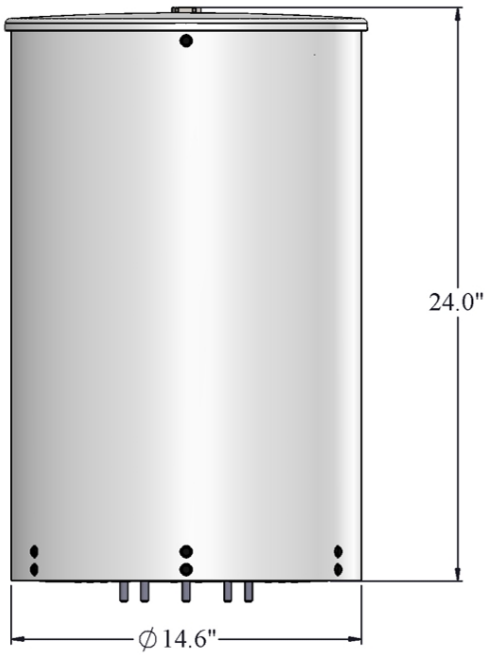
Note: To comply with FCC Title 47 Part 15 U-NII 1, the vertical beam upper side lobe at 5150-5250 MHz < -12 dB at > 30° above horizon

CX18OMI236-1Cxy

NWAV™ Cylinder Antenna

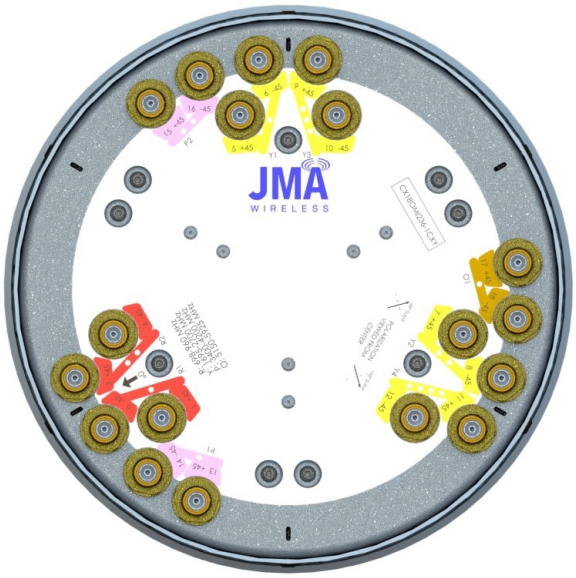
Mechanical specifications	
Dimensions height/diameter, inches (mm)	24.0/ 14.6 (609.6/ 370.8)
Antenna volume (cubic feet)	2.32
No. of RF input ports, connector type, and location	18 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)
Net antenna weight, lb (kg)	30 (13.6)
Rated wind survival speed, mph (km/h)	150 (241)
Frontal wind loading @ 160 km/h, lbf (N)	30 (133)
Equivalent flat plate @ 100 mph and Cd=2, sq ft	1.17/0.69

Front view



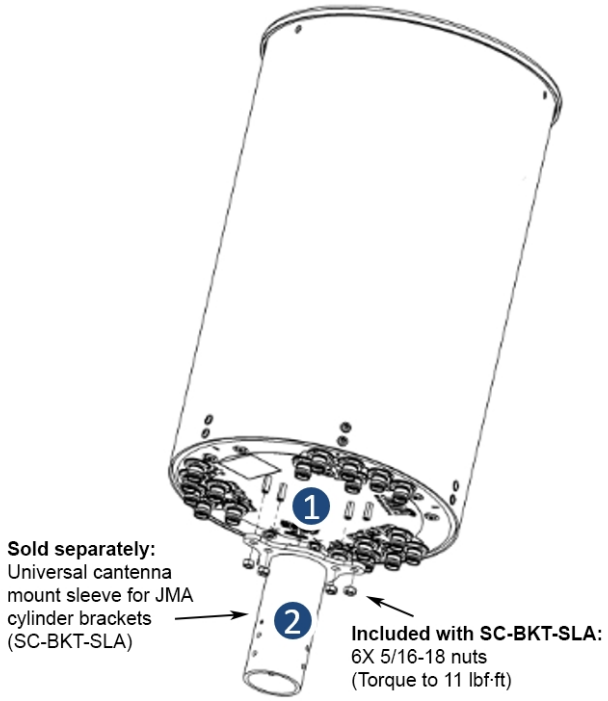
End view

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)

Ordering information	
Antenna model	**Description**
CX18OMI236-1Cxy (xy represents the fixed down tilt value per 4 ports for 1695-2700 MHz	2ft 18 Port OMNI antenna 4LB 8MB 4CBRS 2LAA
	xy= 2, 4, or 6 deg FET per 4 ports 1695-2700 MHz value x= FET value for ports 5, 6, 9, 10 (Y1 & Y3) y= FET value for ports 7, 8, 11, 12 (Y2 & Y4)

Notes on mounting brackets	Example bracket configuration
• 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.	

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

9 sets of radiating arrays

R1: 698-960 MHz
R2: 698-960 MHz
Y1: 1695-2700 MHz
Y2: 1695-2700 MHz
Y3: 1695-2700 MHz
Y4: 1695-2700 MHz
P1: 3400-4200 MHz
P2: 3400-4200 MHz
O1: 5150-5925 MHz

Band	RF port
698-960	1-2
698-960	3-4
1695-2700	5-6
1695-2700	7-8
1695-2700	9-10
1695-2700	11-12
3400-4200	13-14
3400-4200	15-16
5150-5925	17-18