



# CX24HYB236-1C

## NWAV™ Cylinder Antenna

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

#### 4 ports 698-960, 12 ports 1695-2690 MHz, and 8 ports 3400-4200 MHz

- Small Cell multi-port cylinder antenna with higher gain sectorized midband and quasi-omni for low band and 3.5 GHz.
- Ideal to reduce sub-L1 and L3 triggers
- 4x4 MIMO-capable 698-2690 MHz, 4x4 AWS/PCS sectorized, 8x8-capable for 3400-4200 MHz
- Increased CBRS/C-Band gain for improved coverage
- Excellent cross-polar discrimination for MIMO performance



Electrical specification (min/max)	Ports 1, 2, 3, 4			Ports 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16				
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)	4.2	4.2	4.0	14.5	14.8	15.6	15.7	16.0
Gain, dBi (average)	3.7	3.7	3.5	14.3	14.6	15.3	15.4	15.5
Horizontal beamwidth (HBW), degrees <sup>1</sup>	360°			65°	63°	60°	62°	59°
Vertical beamwidth (VBW), degrees <sup>1</sup>	79	69	69	15	14.0	13.0	12.0	11.0
Cross-polar discrimination over 360° <sup>1</sup>	15.5	14.0	14.0	20.0	20.0	19.0	19.0	17.7
Electrical downtilt (EDT), degrees	0°			2°				
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 17, 18, 19, 20, 21, 22, 23, 24	
Frequency bands, MHz	3400-3700	3700-4200
Polarization	± 45°	
Gain, dBi (max)	8.9	9.3
Gain, dBi (average)	8.1	8.3
Horizontal beamwidth (HBW), degrees <sup>1</sup>	360°	
Vertical beamwidth (VBW), degrees <sup>1</sup>	24	20
Cross-polar discrimination over 360° <sup>1</sup>	18.0	14.2
Electrical downtilt (EDT), degrees	0°	0°
Cross-polar isolation, dB <sup>1</sup>	25	
Max VSWR / return loss, dB	1.5:1 / -14.0	1.5:1 / -14.0
Maximum input power port, watts	100	

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



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Electrical specification (min/max)	Ports 1 - 24
Maximum composite power, watts (all ports)	1750
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

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

Ordering information	
Antenna model	Description
CX24HYB236-1C	2ft 24 Port HYB antenna 4LB 12MB 8CBRS/C-Band

Notes on mounting brackets	Example bracket configuration
<ul style="list-style-type: none"> <li>The antenna comes with the bottom mount studs (marked as <b>1</b>) factory-installed.</li> <li>JMA cylinder brackets are compatible with bottom mount via universal antenna mount sleeve (marked as <b>2</b>) (SC-BKT-SLA), sold separately with JMA cylinder mounting systems.</li> <li>To mitigate potential risk of PIM issues, the recommended torque values need to be applied.</li> </ul>	<p><b>Sold separately:</b> Universal antenna mount sleeve for JMA cylinder brackets (SC-BKT-SLA)</p> <p><b>Included with SC-BKT-SLA:</b> 6X 5/16-18 nuts (Torque to 11 lbf-ft)</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)		

Array topology										
<p>12 sets of radiating arrays</p> <p>R1: 698-960 MHz            R2: 698-960 MHz            Y1: 1695-2690 MHz            Y2: 1695-2690 MHz            Y3: 1695-2690 MHz            Y4: 1695-2690 MHz            Y5: 1695-2690 MHz            Y6: 1695-2690 MHz            P1: 3400-4200 MHz            P2: 3400-4200 MHz            P3: 3400-4200 MHz            P4: 3400-4200 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, 3, 4</td> </tr> <tr> <td>1695-2690</td> <td>5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16</td> </tr> <tr> <td>3400-4200</td> <td>17, 18, 19, 20, 21, 22, 23, 24</td> </tr> </tbody> </table>	Band	RF port	698-960	1, 2, 3, 4	1695-2690	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	3400-4200	17, 18, 19, 20, 21, 22, 23, 24	
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