



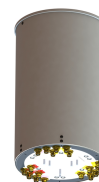
# CYL2Q24GR-20xyz

## NWAV™ Cylinder Antenna

### 24-port cylinder antenna 617-4200 MHz:

4 ports 617-894, 12 ports 1695-2690 MHz, and 8 ports 3400-4200 MHz

- Small Cell Omni antenna
- Supports multi-carrier 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 for C-Band spectrum
- Optimal 3400-4200 MHz gain to realize EIRP limit



	Low band	Mid band	CBRS/C-Band
Frequency bands, MHz	(2x) 617-894	(6x) 1695-2690	(4x) 3400-4200
Array	■ R1 ■ R2	■ Y1 ■ Y2 ■ Y3 ■ Y4 ■ Y5 ■ Y6	■ P1 ■ P2 ■ P3 ■ P4
Connector	4 PORTS	12 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, 4, 6	0
Configuration	Omni antenna		
Connector type	(24x) 4.3-10 female		
Dimensions, in. (mm)	24.0/ 14.6 (609.6/ 370.8)		
Maximum composite power, watts (all ports)	1000		

	Gray (Pantone 420C)	Brown (Pantone 476C)	Black (RAL 9011)
Radome color			

### Electrical specifications Low Band ■ R1 ■ R2

Frequency range, MHz	(2x) 617-894
Polarization	(2x) ± 45°
Gain, BASTA, dBi	3.0 ± 0.5
Gain, MAX, dBi	3.6
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	74.5
Electrical downtilt (EDT), degrees	0
Impedance, ohms	50
VSWR	≤ 1.5:1
PIM, 2x20W carrier, dBc	< -153
Isolation, intra-band, dB	>25



### 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 ■ Y5 ■ Y6

Frequency range, MHz	(6x) 1695-2690			
Frequency sub-range, MHz	1695-1880	1850-1990	1920-2200	2300-2690
Polarization	(6x) ± 45°			
Gain, BASTA, dBi	6.6 ± 0.5	6.8 ± 0.6	7.4 ± 0.5	7.6 ± 0.6
Gain, MAX, dBi	7.1	7.4	7.9	8.2
Average gain over all tilts, dBi	6.5 ± 0.4	6.7 ± 0.4	7.3 ± 0.4	7.5 ± 0.4
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360	360	360	360
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	39	37	36	31
Cross-polar discrimination over 360° <sup>1</sup>	>15	>16	>17	>18
Upper side lobe suppression	>14	>14	>15	>15
Electrical downtilt (EDT), degrees	2 or 4 or 6			
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 CBRS/C-Band ■ P1 ■ P2 ■ P3 ■ P4

Frequency range, MHz	3450-3550	(4x) 3550-3700	3700-4200
Polarization	(4x) ± 45°		
Gain, BASTA, dBi	7.5 ± 0.5	7.7 ± 0.5	7.9 ± 0.5
Gain, MAX, dBi	8.4	8.6	8.8
Horizontal beamwidth (HBW), 3 dB, degrees <sup>1</sup>	360		
Vertical beamwidth (VBW), 3dB, degrees <sup>1</sup>	24 ± 2	22 ± 2	20 ± 2
Cross-polar discrimination over 360° <sup>1</sup>	>15	>16	>15
Upper side lobe suppression	>14	>15	>13
Electrical downtilt (EDT), degrees	0		
Impedance, ohms	50		
VSWR	≤ 1.5:1		
Isolation, intra-band, dB	>25		
Isolation, inter-band, dB	>28		
Input power per port, watts	100		
PIM, 2x20 W carrier, dBc	-145		

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

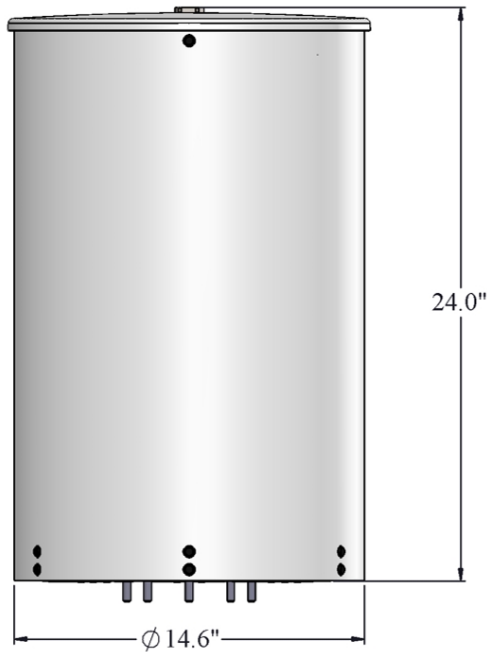


Mechanical specifications	
Dimensions height/diameter, inches (mm)	24.0/ 14.6 (609.6/ 370.8)
Antenna volume (cubic feet)	2.32
No. of RF input ports, connector type, and location	24 x 4.3-10 RF, bottom
RF connector torque	96 lbf-in (10.85 N·m or 8 lbf-ft)
Net antenna weight, lb (kg)	36 (16.32)
Rated wind 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**

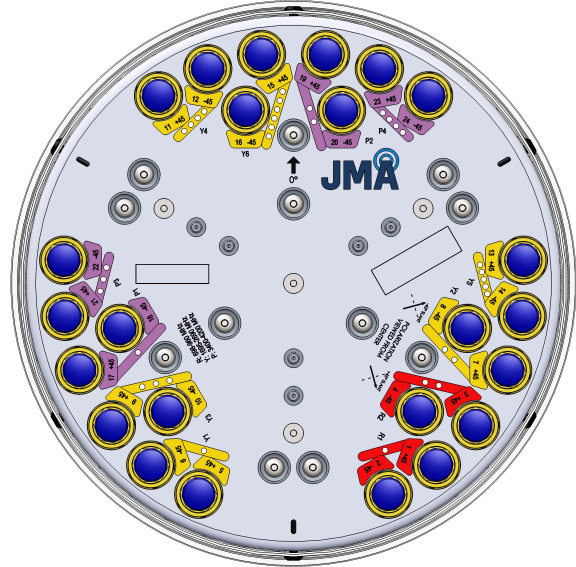
12 sets of radiating arrays  R1: 617-894 MHz R2: 617-894 MHz Y1: 1695-2690 MHz Y2: 1695-2690 MHz Y3: 1695-2690 MHz Y4: 1695-2690 MHz Y5: 1695-2690 MHz Y6: 1695-2690 MHz P1: 3400-4200 MHz P2: 3400-4200 MHz P3: 3400-4200 MHz P4: 3400-4200 MHz	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>617-894</td> <td>1-2</td> </tr> <tr> <td>617-894</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>1695-2690</td> <td>13-14</td> </tr> <tr> <td>1695-2690</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> <tr> <td>3400-4200</td> <td>21-22</td> </tr> <tr> <td>3400-4200</td> <td>23-24</td> </tr> </tbody> </table>	Band	RF port	617-894	1-2	617-894	3-4	1695-2690	5-6	1695-2690	7-8	1695-2690	9-10	1695-2690	11-12	1695-2690	13-14	1695-2690	15-16	3400-4200	17-18	3400-4200	19-20	3400-4200	21-22	3400-4200	23-24	
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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).

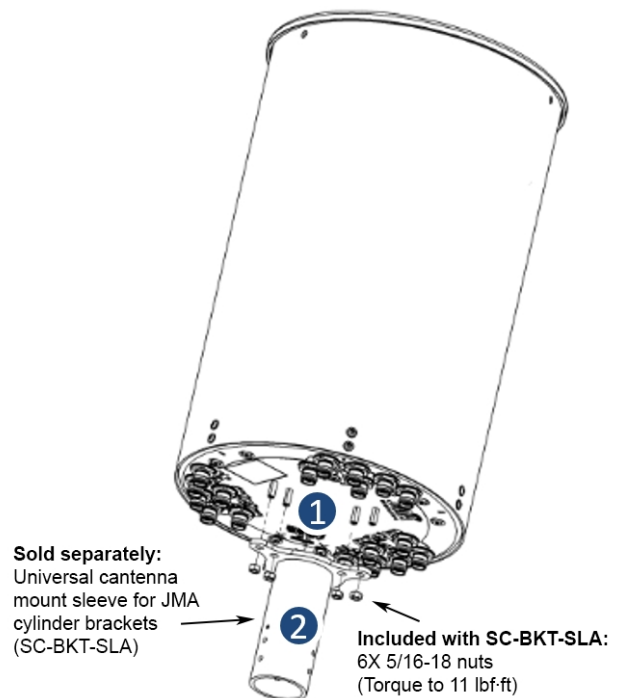


End view details: 6 stud bolts for direct mount to the Universal Sleeve (SC-BKT-SLA)

**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 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**





**CYL2Q24GR-20xyz**  
**NWAV™ Cylinder Antenna**

**Ordering information**

Antenna model	Description
CYL2Q24GR-20xyz R represents the selected Radome color of GRAY (G), BROWN (W), or BLACK (B) xy= fixed electrical tilt for 1695-2690 MHz in degrees x= arrays Y1 & Y2 y= arrays Y3 & Y4 z= arrays Y5 & Y6	2ft 24 Port OMNI antenna 4LB 12MB 8CBRS/C-Band

**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)		