



CYL2Q16GR-1xy

NWAV™ Cylinder Antenna

Product discontinued from

April 2025

Replacement model:

[CYL2Q16R-2xy](#)

16-port cylinder antenna 1695-5925 MHz:




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

- Small Cell Omni antenna with integrated GPS unit
- Future-proof design to support up to 4200 MHz for LS6 spectrum
- Increased CBRS and LS6 gain
- Supports multi-carrier deployments with 4x4 MIMO capability with all bands
- Symmetrical pattern performance across all 8 ports 1695-2690
- Excellent cross-polar discrimination for enhanced MIMO performance
- Center-mounted lift ring for easy installations



NWAV™

	GPS band	Mid band				CBRS/LS6		LAA band	
Frequency bands, MHz	1575.42	(4x) 1695-2690				(2x) 3400-4200		(2x) 5150-5925	
Array	--	Y1	Y2	Y3	Y4	P1	P2	O1	O2
Connector	1 PORT	8 PORTS				4 PORTS		4 PORTS	
Polarization	RH CIR.	XPOL				XPOL		XPOL	
Horizontal beamwidth (HBW), degrees ¹	--	360				360		360	
Electrical downtilt (EDT), degrees ¹	--	2, 4, 6				0		0	
Configuration	Omni antenna with integrated GPS unit								
Connector type	(16x) 4.3-10 female and (1x) N-type female for GPS								
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			



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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	7.2 ± 0.4	7.6 ± 0.6	8.1 ± 0.5	8.9 ± 0.3
Gain, MAX, dBi	7.6	8.2	8.6	9.2
Horizontal beamwidth (HBW), 3 dB, degrees ¹	360	360	360	360
Vertical beamwidth (VBW), 3dB, degrees ¹	21.5 ± 2.5	20 ± 0.5	18.5 ± 1.5	15.7 ± 1.1
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			

For optimal 4x4 MIMO performance, we would recommend the following port combinations be used together: Y1-Y2 and Y3-Y4

Electrical specification CBRS/LS6 ■ P1 ■ P2

Frequency range, MHz	(2x) 3400-4200
Polarization	(2x) ± 45°
Gain, BASTA, dBi	7.8 ± 0.8
Gain, MAX, dBi	8.6
Horizontal beamwidth (HBW), 3 dB, degrees ¹	360
Vertical beamwidth (VBW), 3dB, degrees ¹	23 ± 3.5
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



Electrical specification LAA Band O1 O2

Frequency range, MHz	(2x) 5150-5925
Polarization	(2x) $\pm 45^\circ$
Gain, BASTA, dBi	5 ± 0.6
Gain, MAX, dBi	5.8
Horizontal beamwidth (HBW), 3 dB, degrees ¹	360
Vertical beamwidth (VBW), 3dB, degrees ¹	21.8 ± 2.5
Electrical downtilt (EDT), degrees	0
Impedance, ohms	50
VSWR	$\leq 1.5:1$
Upper side lobe suppression, dB	Complies with FCC (UNI-I) specifications
Isolation, intra-band, dB	>25
Isolation, inter-band, dB	>28
Input power per port, watts	50

¹ Typical value over frequency and tilt.

Integrated GPS unit

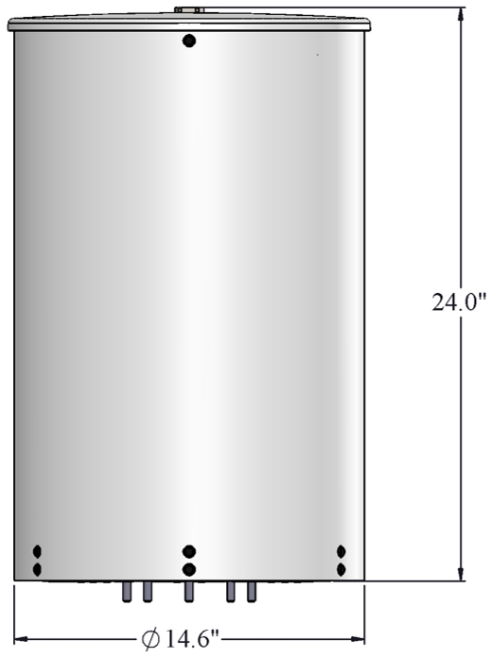
Frequency range, MHz	1575.42 ± 10
Polarization	Right hand circular
Nominal gain, dBic	3 at 90° ; -2 at 20°
Current draw, mA	22 @ 5V
Out-of-band rejection, dB	> 55 at 1559 MHz; > 60 at 1625 MHz
Amplifier gain, dB	28 ± 3
Nominal impedance, ohms	50
Noise figure, dB	3.9
DC voltage, dB	3.9
VSWR	< 2.0:1
Connector	N-type female



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	16 x 4.3-10 RF, 1 x N-type GPS 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	1.9/0.175

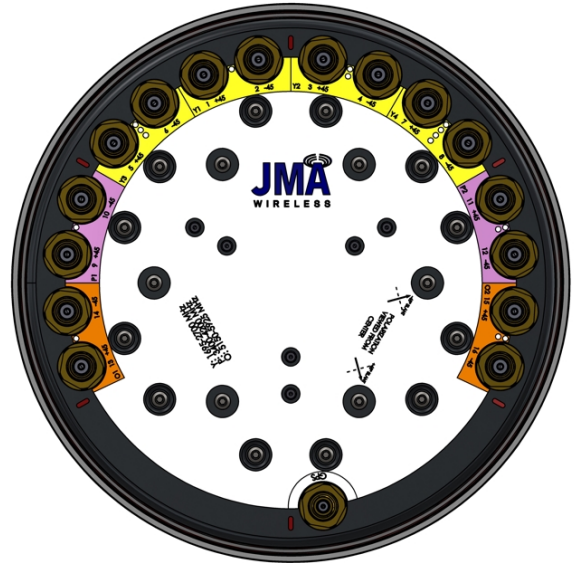
Array topology																				
8 sets of radiating arrays Y1: 1695-2690 MHz Y2: 1695-2690 MHz Y3: 1695-2690 MHz Y4: 1695-2690 MHz P1: 3400-4200 MHz P2: 3400-4200 MHz O1: 5150-5925 MHz O2: 5150-5925 MHz	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>1695-2690</td> <td>1-2</td> </tr> <tr> <td>1695-2690</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>3400-4200</td> <td>9-10</td> </tr> <tr> <td>3400-4200</td> <td>11-12</td> </tr> <tr> <td>5150-5925</td> <td>13-14</td> </tr> <tr> <td>5150-5925</td> <td>15-16</td> </tr> </tbody> </table>	Band	RF port	1695-2690	1-2	1695-2690	3-4	1695-2690	5-6	1695-2690	7-8	3400-4200	9-10	3400-4200	11-12	5150-5925	13-14	5150-5925	15-16	
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	5150-5925	15-16																		

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).

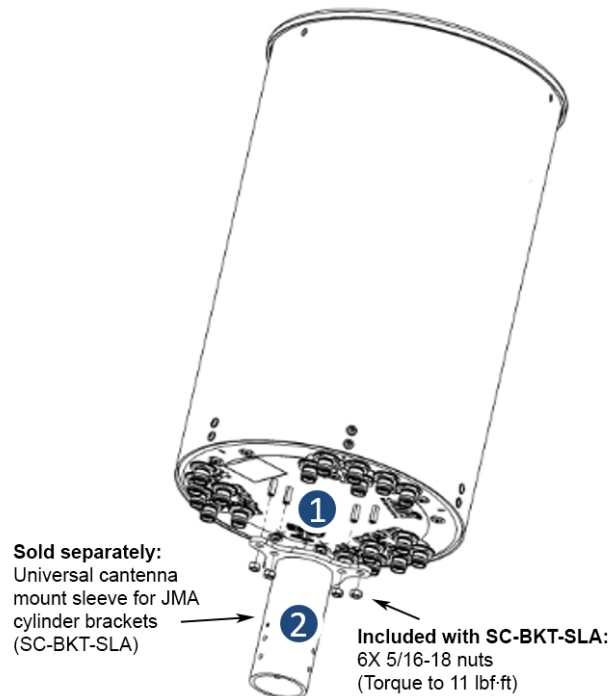


End view details: 6 stud bolts for direct mount to the Universal Sleeve (SC-BKT-SLA)

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





CYL2Q16GR-1xy

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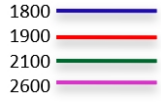
Ordering information

Antenna model				Description	
CYL2Q16GR-1xy				2ft 16 Port OMNI antenna 8MB 4CBRS 4LAA with GPS	
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					
Model	Radome color (R)	Tilt configuration			Radome color and tilt configuration description
		Y1-Y4 (x,y)	P1 P2	O1 O2	
CYL2Q16GG-122	GRAY (G)	2°	0	0	2ft 16 Port antenna with GRAY Radome and 2° & 2° tilt settings
CYL2Q16GG-124		Y1&Y2=2°,Y3&Y4=4°	0	0	2ft 16 Port antenna with GRAY Radome and 2° & 4° tilt settings
CYL2Q16GG-126		Y1&Y2=2°,Y3&Y4=6°	0	0	2ft 16 Port antenna with GRAY Radome and 2° & 6° tilt settings
CYL2Q16GG-144		4°	0	0	2ft 16 Port antenna with GRAY Radome and 4° & 4° tilt settings
CYL2Q16GG-146		Y1&Y2=4°,Y3&Y4=6°	0	0	2ft 16 Port antenna with GRAY Radome and 4° & 6° tilt settings
CYL2Q16GG-166		6°	0	0	2ft 16 Port antenna with GRAY Radome and 6° & 6° tilt settings
CYL2Q16GW-122	BROWN (W)	2°	0	0	2ft 16 Port antenna with BROWN Radome and 2° & 2° tilt settings
CYL2Q16GW-124		Y1&Y2=2°,Y3&Y4=4°	0	0	2ft 16 Port antenna with BROWN Radome and 2° & 4° tilt settings
CYL2Q16GW-126		Y1&Y2=2°,Y3&Y4=6°	0	0	2ft 16 Port antenna with BROWN Radome and 2° & 6° tilt settings
CYL2Q16GW-144		4°	0	0	2ft 16 Port antenna with BROWN Radome and 4° & 4° tilt settings
CYL2Q16GW-146		Y1&Y2=4°,Y3&Y4=6°	0	0	2ft 16 Port antenna with BROWN Radome and 4° & 6° tilt settings
CYL2Q16GW-166		6°	0	0	2ft 16 Port antenna with BROWN Radome and 6° & 6° tilt settings
CYL2Q16GB-122	BLACK (B)	2°	0	0	2ft 16 Port antenna with BLACK Radome and 2° & 2° tilt settings
CYL2Q16GB-124		Y1&Y2=2°,Y3&Y4=4°	0	0	2ft 16 Port antenna with BLACK Radome and 2° & 4° tilt settings
CYL2Q16GB-126		Y1&Y2=2°,Y3&Y4=6°	0	0	2ft 16 Port antenna with BLACK Radome and 2° & 6° tilt settings
CYL2Q16GB-144		4°	0	0	2ft 16 Port antenna with BLACK Radome and 4° & 4° tilt settings
CYL2Q16GB-146		Y1&Y2=4°,Y3&Y4=6°	0	0	2ft 16 Port antenna with BLACK Radome and 4° & 6° tilt settings
CYL2Q16GB-166		6°	0	0	2ft 16 Port antenna with BLACK Radome and 6° & 6° tilt settings

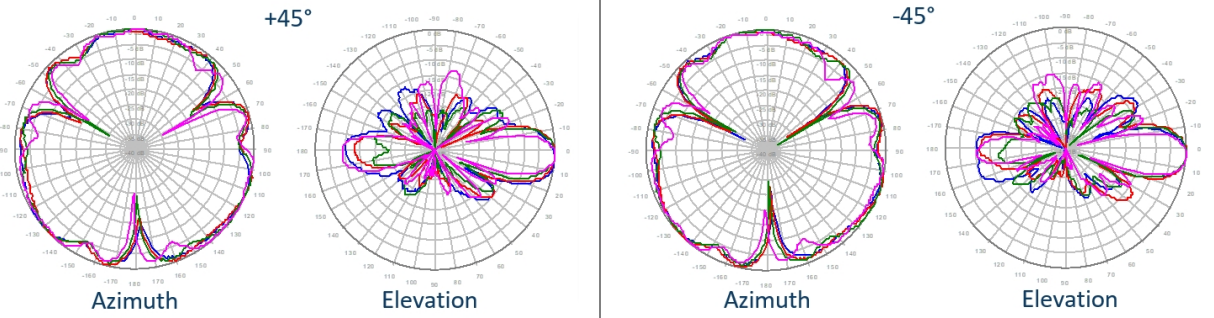
Small Cell solutions and mounting systems (sold separately)

Side Arm Mounting System	SC-BKT-SA-(color)	Wide Diameter Pole	SC-BKT-WTPE-(color)
Steel Pole Mounting System	SC-BKT-SLA (color)		

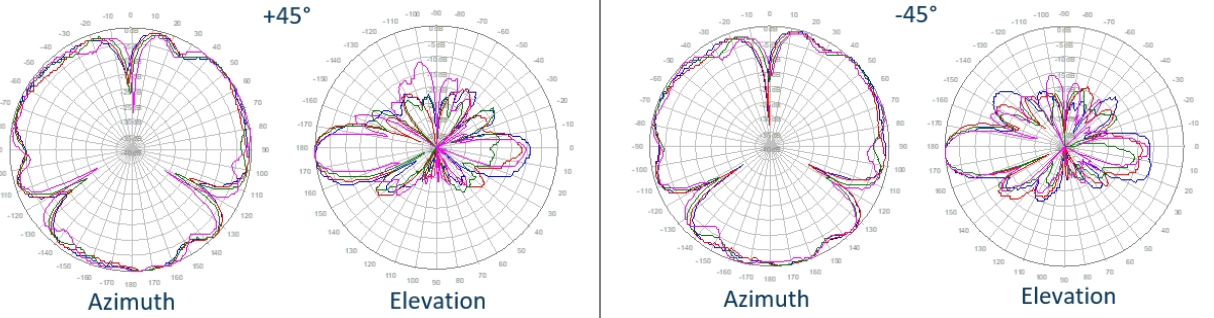
Polar patterns



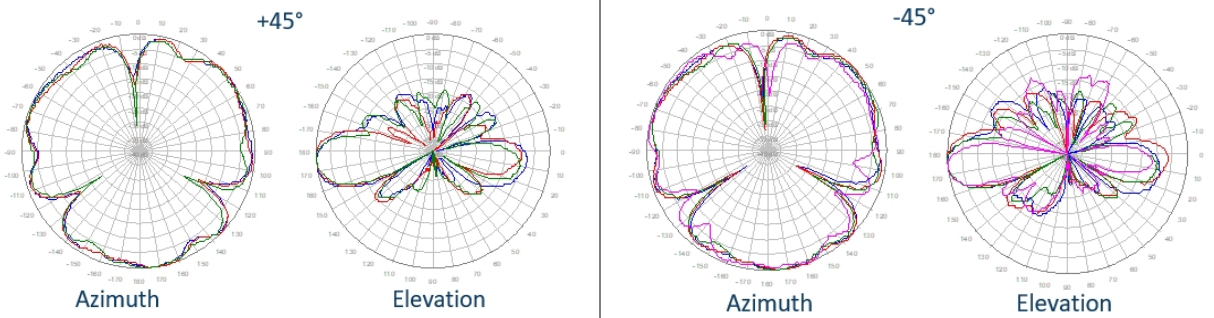
Y1-Y4, 2° Tilt



Y1-Y4, 4° Tilt



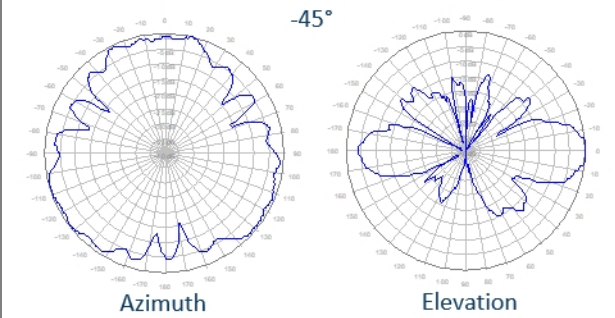
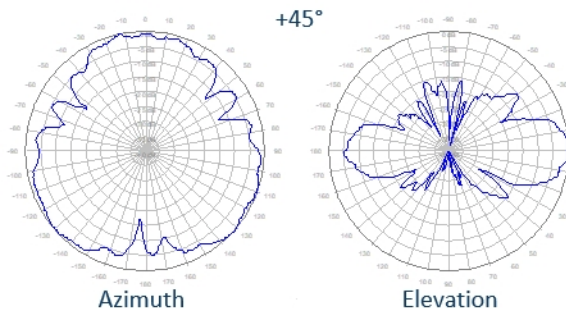
Y1-Y4, 6° Tilt



Polar patterns

P1-P2, 0° Tilt

3600



O1, 0° Tilt

5600

