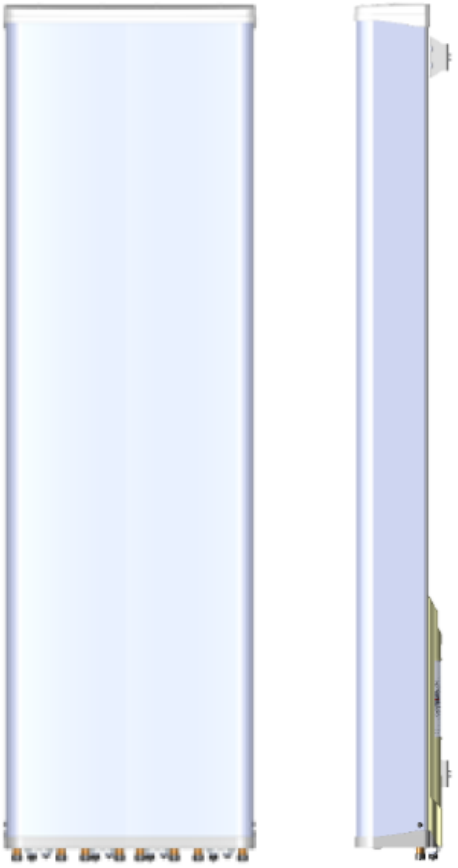
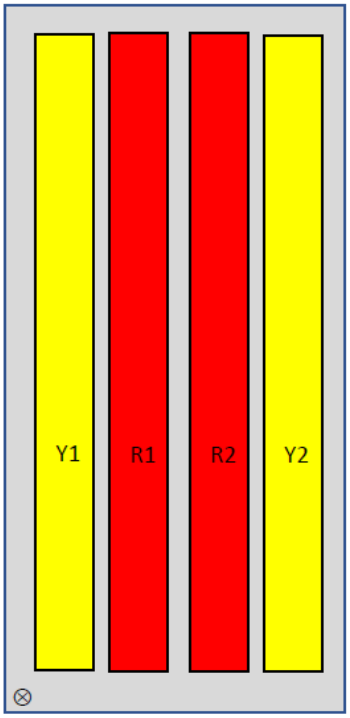
Antenna type

12044x

CMA-UBTULBULBHH/6516/16/21/21

8-port antenna	Unit	R1	R2	Y1	Y2
Frequency range	MHz	617 – 894	617 – 894	1695 - 2690	1695 - 2690
Polarization		x	x	x	x
HBW	°	65	65	65	65
Gain	dBi	16	16	21	21
EDT range	°	2 - 12	2 - 12	1 - 10	1 - 10





Product architecture

The CellMax new form factor multiband antennas extends line of the ultra-wide band antennas, combining wide band width in the high bands with wide band in the low bands, still featuring exceptionally low insert ion loss in a compact package.

The design aims at low differences between the ports in terms of gain (per band), azimuth and elevation patterns, and a very good electrical tilt precision. New for these antennas is the built- in aim in the bottom plate, which can help making sure th e antenna is also mechanically aimed correctly, allowing the antenna potential to the highest in the industry cell throughput to come to fruition.

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Antenna type

12044x

CMA-UBTULBULBHH/6516/16/21/21

Electrical Parameters R1 and R2:

Parameter (Radiation)				
Frequency band	MHz	617 - 698	699 - 798	824 - 894
Gain	dBi	15.4	16.2	16.5
Azimuth Parameters				
Azimuth (3dB) Beam Width	°	69	65	62
Azimuth Beam Squint	°	7	7	6
Front to Back Ratio (total power)	dB	>25	>25	>25
Cross-Polar Discrimination (0°)	dB	>20	>20	>20
Sector Power Ratio	%	8.7	8.1	8.5
Elevation Parameters				
Elevation (3 dB) Beam Width	°	14	12	11
Electrical Downtilt Range	°	2 – 12	2 – 12	2 – 12
First upper Sidelobe suppression	dB	>15	>17	>16
First Nullfill Below Horizon	dB	-	-	-

Parameter (ports)		
Frequency band	MHz	617 - 894
Impedance	Ω	50
VSWR/Return Loss	_/dB	1.5 / 14
Intra Array Isolation	dB	28
Inter Array Isolation	dB	28
Passive Intermodulation @ 2x43 dBm CW	dBc	-155
Maximum input Power per port	W	500
Antenna Insertion Loss	dB	0.4

Antenna type

12044x

CMA-UBTULBULBHH/6516/16/21/21

Electrical Parameters Y1 and Y2:

Parameter (Radiation)					
Frequency band	MHz	1695 - 1880	1850 - 1990	1920 - 2200	2490 - 2690
Gain	dBi	19.7	20.0	20.2	21.5
Azimuth Parameters					
Azimuth (3dB) Beam Width	°	64	64	66	54
Azimuth Beam Squint**	°	5	6	6	2
Front to Back Ratio (total power)	dB	>25	>25	>25	>25
Cross-Polar Discrimination (0°)	dB	>20	>20	>20	>20
Sector Power Ratio	%	2.7	2.7	3.1	2.5
Elevation Parameters					
Elevation (3 dB) Beam Width	°	5.0	4.7	4.5	3.5
Electrical Downtilt Range	°	1 – 10	1 – 10	1 – 10	1 – 10
First upper Sidelobe suppression	dB	15	16	16	14
First Nullfill Below Horizon	dB	>- 24	>- 21	>- 20	>- 16

Parameter (ports)					
Frequency band	MHz	1695 - 1880	1850 - 1990	1920 - 2200	2490 - 2690
Impedance	Ω	50			
VSWR/Return Loss	_/dB	1.5 / 14			
Intra Array Isolation	dB	28	28	28	28
Inter Array Isolation	dB	28	28	28	28
Passive Intermodulation @ 2x43 dBm CW	dBc	-155			
Maximum Input Power per port	W	500			
Antenna Insertion Loss	dB	0.4	0.5	0.5	0.6

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Antenna type

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Mechanical parameters:

Mechanical specification:	
Connectors	8 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	1840 (72.4)
Width mm (inch)	680 (26.7)
Depth mm (inch)	196 (7.7)
Antenna weight kg (lb)	48 (105)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	1160 (261)
Lateral N (lbf)	231 (52)
Survival wind speed m/s (mph)	67 (151)
EPA m^2 ($inch^2$)	1.07 (1658)
Colour radome	Light Grey, RAL 7035
Radome material	ASA
Mounting hardware:	
Mounting bracket	2
Bracket weight (complete) kg (lb)	5 (11)
Pole diameter mm (inch)	45 (1.8) - 120 (4.7)
Mechanical tilt range °	0 - 5

Packing data	
Box size mm (inch)	2650x715x245 (104x28x8.4)
Box weight kg (lb)	68 (150)
Maximum number of boxes per pallet	8

RET info

The RET actuator is AISG compatible and signals Single-Antenna RET Device type 0x01 (hex) in AISG protocol layer 2 as described in 3GPP TS25.462 (a.k.a. TYPE 1).

One RET actuator per antenna column, with individual AISG connectors in and out.

Type CMA-RET-02

RET spare part order number: 110086.

Ordering information:

Product number	Product description
120440	UBTULBULBHH/6516/16/21/21/MET including standard tilt mount
120445	UBTULBULBHH/6516/16/21/21/RET including standard tilt mount

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