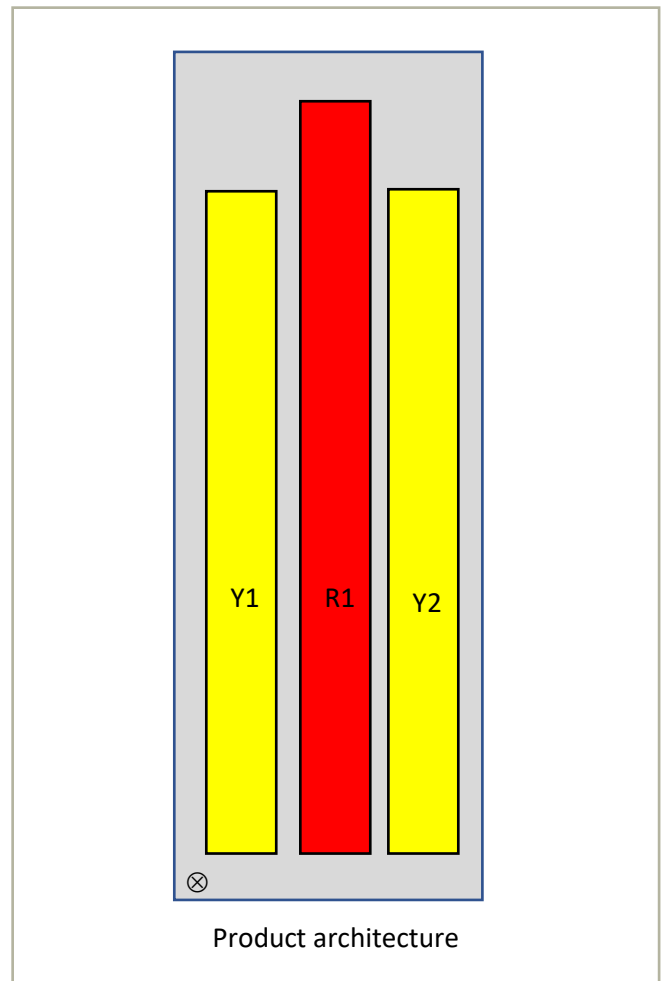
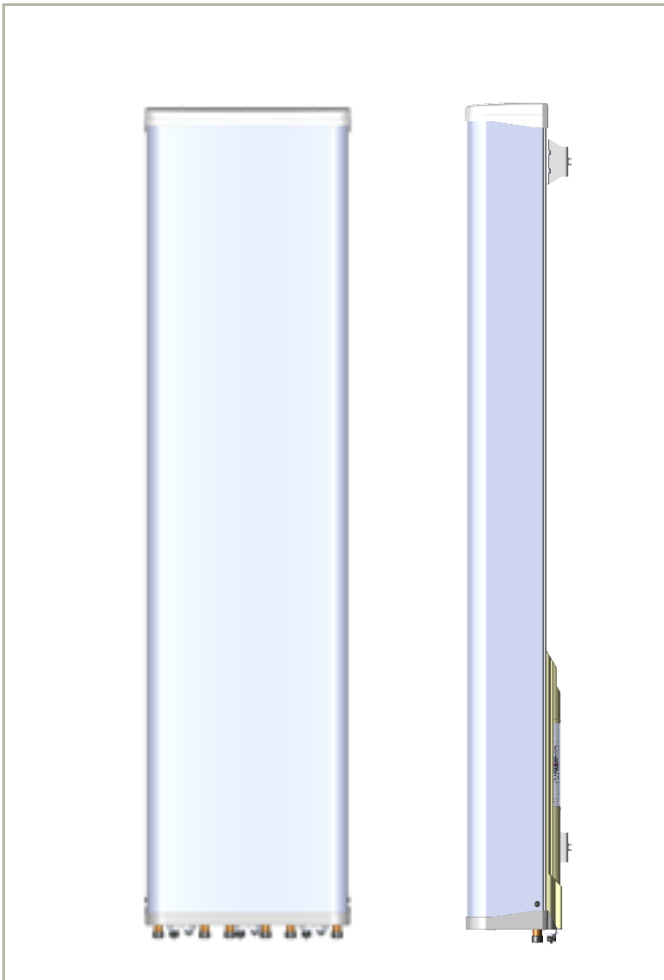


CMA-UBTLBHH/6516/20/20-ULP

6-port antenna	unit	R1	Y1	Y2
Frequency range	MHz	698 – 960*	1695 - 2690	1695 - 2690
Polarization		x	x	x
HBW	°	65	65	65
Gain	dBi	16	20	20
EDT range	°	2 - 12	2 - 10	2 - 10



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 insertion 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 the antenna is also mechanically aimed correctly, allowing the antenna potential to the highest in the industry cell throughput to come to fruition.

ULP means “Ultra Low PIM”, a feature of growing importance as the number of bands in use increases.

CMA-UBTLBHH/6516/20/20-ULP

Electrical Parameters R1:

Parameter (Radiation)			
Frequency band	MHz	698 - 896	880 – 960*
Gain	dBi	15.6	15.8
Azimuth Parameters			
Azimuth (3dB) Beam Width	°	67	71
Azimuth Beam Squint	°	4	5
Front to Back Ratio (total power)	dB	>24 (typical >27)	>23 (typical >26)
Cross-Polar Discrimination (0°)	dB	>29	>25
Sector Power Ratio	%	6.5	8.0
Elevation Parameters			
Elevation (3 dB) Beam Width	°	12.6	11.1
Electrical Downtilt Range	°	2 – 12	2 – 12
First upper Sidelobe suppression	dB	>16	>17
First Nullfill Below Horizon	dB	-	-

Parameter (ports)			
Frequency band	MHz	698 - 896	880 – 960
Impedance	Ω	50	
VSWR/Return Loss	_/_dB	1.5 / 14	
Intra Array Isolation	dB	28	28
Inter Array Isolation	dB	28	28
Passive Intermodulation @ 2x43 dBm CW	dBc	-158	
Maximum Input Power per port	W	500	
Antenna Insertion Loss	dB	0.4	0.4

*Except 915 – 925 MHz

CMA-UBTLBHH/6516/20/20-ULP

Electrical Parameters Y1 and Y2:

Parameter (Radiation)					
Frequency band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2490 - 2690
Gain	dBi	18.0	18.3	18.1	19.9
Azimuth Parameters					
Azimuth (3dB) Beam Width	°	67	67	67	56
Azimuth Beam Squint**	°	4	5	4	5
Front to Back Ratio (total power)	dB	>26 (typical >28)	>26 (typical >28)	>23 (typical >26)	>26 (typical >28)
Cross-Polar Discrimination (0°)	dB	21	23	22	21
Sector Power Ratio	%	3.2	3.3	3.8	2.7
Elevation Parameters					
Elevation (3 dB) Beam Width	°	6.7	6.2	5.9	4.7
Electrical Downtilt Range	°	2 – 10	2 – 10	2 – 10	2 – 10
First upper Sidelobe suppression	dB	14	17	16	15
First Nullfill Below Horizon	dB	>-26	>-20	>-20	-22

Parameter (ports)					
Frequency band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	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	-160			
Maximum Input Power per port	W	500			
Antenna Insertion Loss	dB	0.6	0.5	0.4	0.5

CMA-UBTLBHH/6516/20/20-ULP

Mechanical parameters

Mechanical specification:	
Connectors	6 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	1659 (65.3)
Width mm (inch)	420 (16.5)
Depth mm (inch)	192 (7.6)
Antenna weight kg (lb)	24 (54)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	755 (170)
Lateral N (lbf)	190 (43)
Survival wind speed m/s (mph)	67 (151)
EPA m ² (inch ²)	0.68 (1062)
Colour radome	Light Grey, RAL 7035
Radome material	ASA
Included 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 - 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 columns, with individual AISG connectors in and out. The antenna columns are R1, Y1 and Y2.

CellMax actuator type CMA-RET-02

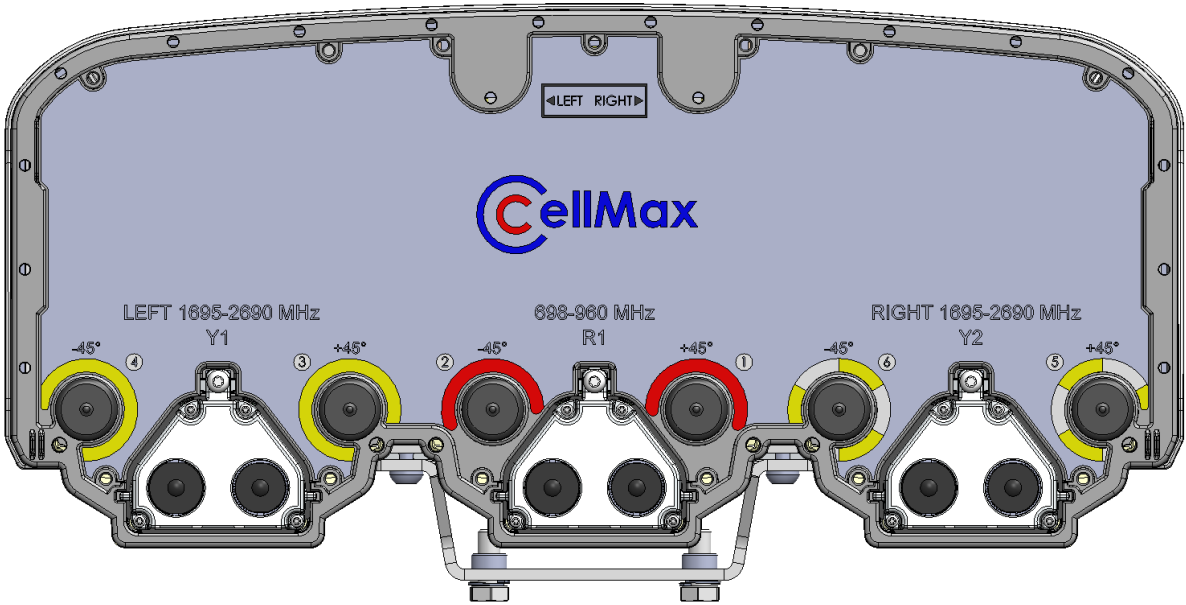
RET spare part order number: 110086.

Packing data	
Box size mm (inch)	
Box weight kg (lb)	
Pallet type	
Maximum number of boxes per pallet	

Ordering information:

Product number	Product description
120346	UBTLBHH/6516/20/20-ULP/RET including standard tilt mount

CMA-UBTLBH/6516/20/20-ULP



Bottom View

Connector	column	Notes
1 - 2	R1	
3 - 4	Y1	
5 - 6	Y2	