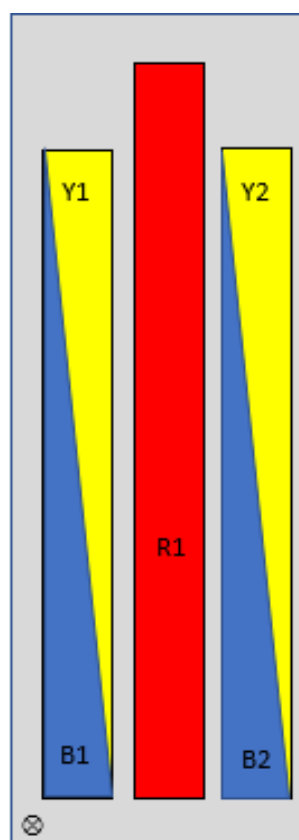
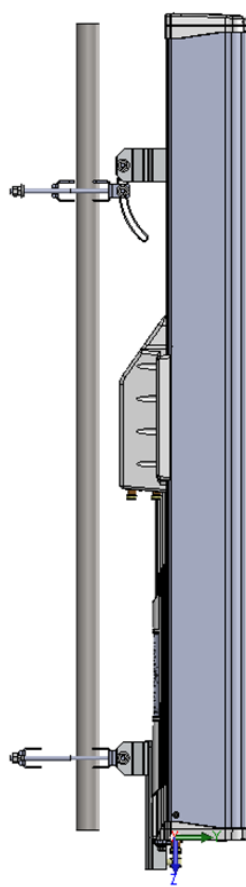
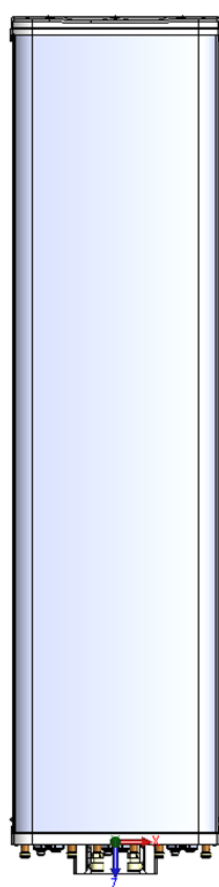


12102x

CMA-UBTLBHFHHFH/6516/18/20

10 - port antenna	Unit	R1	B1	Y1	B2	Y2
Frequency range	MHz	698 – 960*	1695 - 2200	2300 - 2690	1695 - 2200	2300 - 2690
Polarization		x	x	x	x	x
HBW	°	65	65	65	65	65
Gain	dBi	16	18	20	18	20
EDT range	°	2 - 12	2 - 10	2 - 10	2 - 10	2 - 10



Product architecture

This antenna is a version of 12034x with high band diplex filters doubling the number of high band ports to 8.

Load balancing:

These antennas relieve congestion on the low band by allowing greater use of the huge high-band capacity. This allows the low band to be used by subscribers who really need it, with higher throughput and increased subscribers throughout the network.

12102x

CMA-UBTLBHFFHHFH/6516/18/20

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	<-155	
Maximum Input Power per port	W	500	
Antenna Insertion Loss	dB	0.4	0.4

*Except 915 – 925 MHz

12102x

CMA-UBTLBHFHFFH/6516/18/20

Electrical Parameters B1 and B2:

Parameter (Radiation)				
Frequency band	MHz	1710 - 1880	1850 - 1990	1920 - 2200
Gain	dBi	17.8	17.9	18.3
Azimuth Parameters				
Azimuth (3dB) Beam Width	°	67	67	67
Azimuth Beam Squint**	°	4	5	4
Front to Back Ratio (total power)	dB	>26 (typical >28)	>26 (typical >28)	>23 (typical >26)
Cross-Polar Discrimination (0°)	dB	21	23	22
Sector Power Ratio	%	3.2	3.3	3.8
Elevation Parameters				
Elevation (3 dB) Beam Width	°	6.7	6.2	5.9
Electrical Downtilt Range	°	2 – 10	2 – 10	2 – 10
First upper Sidelobe suppression	dB	14	17	16
First Nullfill Below Horizon	dB	-26	-20	-20

Parameter (ports)				
Frequency band	MHz	1710 - 1880	1850 - 1990	1920 - 2200
Impedance	Ω	50		
VSWR/Return Loss	_/dB	1.5 / 14		
Intra Array Isolation	dB	28	28	28
Inter Array Isolation	dB	28	28	28
Passive Intermodulation @ 2x43 dBm CW	dBc	<-155		
Maximum Input Power per port	W	200		
Antenna Insertion Loss	dB	1.1	1.1	1.0

12102x

CMA-UBTLBHFHFFH/6516/18/20

Electrical Parameters Y1 and Y2:

Parameter (Radiation)			
Frequency band	MHz	2300 - 2400	2490 - 2690
Gain	dBi	19.0	19.6
Azimuth Parameters			
Azimuth (3dB) Beam Width	°	58	56
Azimuth Beam Squint**	°	4	5
Front to Back Ratio (total power)	dB	>26 (typical >28)	>26 (typical >28)
Cross-Polar Discrimination (0°)	dB	21	21
Sector Power Ratio	%	3.5	2.7
Elevation Parameters			
Elevation (3 dB) Beam Width	°	5.0	4.7
Electrical Downtilt Range	°	2 – 10	2 – 10
First upper Sidelobe suppression	dB	14	15
First Nullfill Below Horizon	dB	-20	-22

Parameter (ports)			
Frequency band	MHz	1920 - 2170	2490 - 2690
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	<-155	
Maximum Input Power per port	W	200	
Antenna Insertion Loss	dB	1.1	1.0

Mechanical parameters:

Mechanical specification:	
Connectors	10 x 4.3 -10 female
Connector position	Bottom / Back
Lightning protection	DC grounded
Height mm (inch)	1714 (67.5)
Width mm (inch)	420 (16.5)
Depth mm (inch)	265 (10.4)
Antenna weight kg (lb)	34 (75)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	780
Lateral N (lbf)	200
Survival wind speed m/s (mph)	67 (151)
EPA m ² (inch ²)	0.71 (1099)
Colour radome	Light Grey, RAL 7035
Radome material	ASA
Mounting hardware:	
Mounting bracket	2
Bracket weight (complete) kg (lb)	Included in antenna
Pole diameter mm (inch)	45 (1.8) - 120 (4.7)
Mechanical tilt range °	0 - 6

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

Ordering information:

Product number	Product description
121020	CMA-UBTLBHFHHFH/6516/18/20/MET including standard tilt mount
121025	CMA-UBTLBHFHHFH/6516/18/20/RET including standard tilt mount

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.