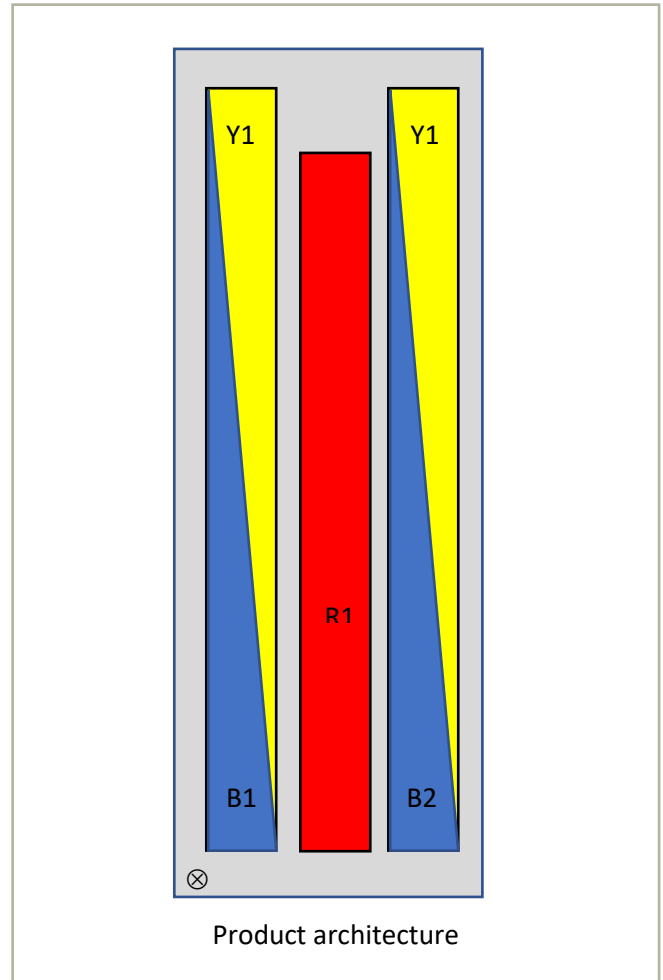
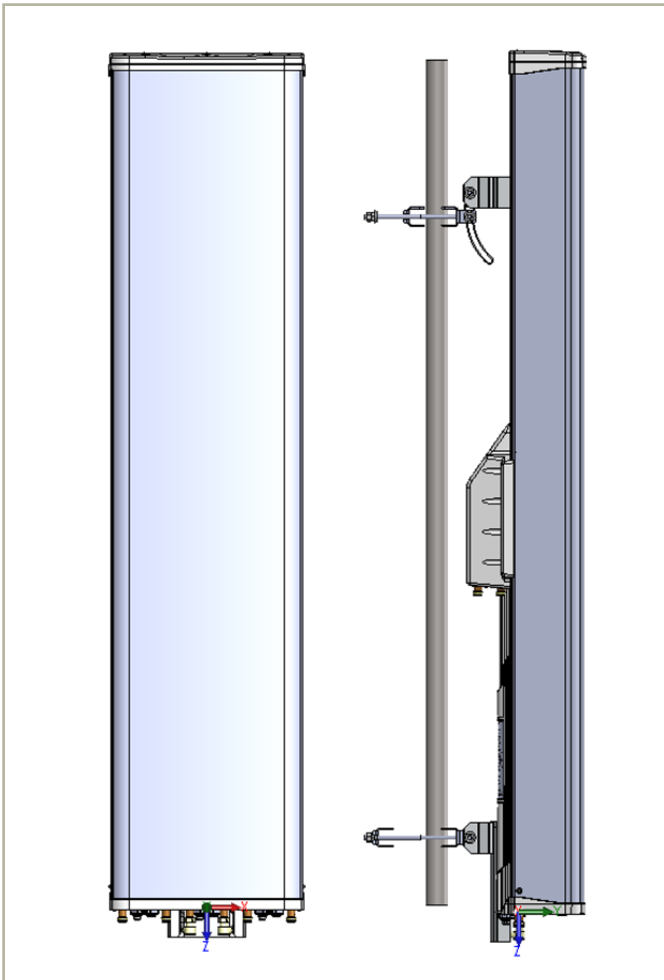


**CMA-UBTLBHFHFFH/6516/20/21**

10-port antenna	unit	<b>R1</b>	<b>B1</b>	<b>Y1</b>	<b>B2</b>	<b>Y2</b>
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	20	21	20	21
EDT range	°	2 - 12	1 - 10	1 - 10	1 - 10	1 - 10



This antenna is a version of 12032x with high band diplex filters doubling the number of high band ports to 8.

## CMA-UBTLBHFHFFH/6516/20/21

### Electrical Parameters R1:

<b>Parameter (Radiation)</b>			
<b>Frequency band</b>	<b>MHz</b>	<b>698 - 896</b>	<b>880 – 960*</b>
Gain	dBi	15.6	15.8
<b>Azimuth Parameters</b>			
Azimuth (3dB) Beam Width	°	70	71
Azimuth Beam Squint	°	3	5
Front to Back Ratio (total power)	dB	>24 (typical >27)	>23 (typical >27)
Cross-Polar Discrimination (0°)	dB	>24	>24
Sector Power Ratio	%	6.7	8.2
<b>Elevation Parameters</b>			
Elevation (3 dB) Beam Width	°	12.6	11.1
Electrical Downtilt Range	°	2 – 12	2 – 12
First upper Sidelobe suppression	dB	>16	>16
First Nullfill Below Horizon	dB	-	-

<b>Parameter (ports)</b>			
<b>Frequency band</b>	<b>MHz</b>	<b>698 - 896</b>	<b>880 – 960</b>
Impedance	$\Omega$	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	0.5

\*Except 915 – 925 MHz

## CMA-UBTLBHFHFFH/6516/20/21

Electrical Parameters B1 and B2:

<b>Parameter (Radiation)</b>				
<b>Frequency band</b>	<b>MHz</b>	<b>1710 - 1880</b>	<b>1850 - 1990</b>	<b>1920 - 2200</b>
Gain	dBi	18.8	19.0	19.8
<b>Azimuth Parameters</b>				
Azimuth (3dB) Beam Width	°	67	67	66
Azimuth Beam Squint**	°	6	6	6
Front to Back Ratio (total power)	dB	>24 (typical >27)	>27 (typical >30)	>25 (typical >28)
Cross-Polar Discrimination (0°)	dB	21	25	21
Sector Power Ratio	%	3.2	3.3	3.6
<b>Elevation Parameters</b>				
Elevation (3 dB) Beam Width	°	5.0	4.7	4.5
Electrical Downtilt Range	°	1 – 10	1 – 10	1 – 10
First upper Sidelobe suppression	dB	17	17	16
First Nullfill Below Horizon	dB	>-24	>-21	-20

<b>Parameter (ports)</b>				
<b>Frequency band</b>	<b>MHz</b>	<b>1710 - 1880</b>	<b>1850 - 1990</b>	<b>1920 - 2170</b>
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	1.0	1.1	1.2

**CMA-UBTLBHFHFFH/6516/20/21**

Electrical Parameters Y1 and Y2:

<b>Parameter (Radiation)</b>			
<b>Frequency band</b>	<b>MHz</b>	<b>2300 - 2400</b>	<b>2490 - 2690</b>
Gain	dBi	20.1	20.8
<b>Azimuth Parameters</b>			
Azimuth (3dB) Beam Width	°	58	56
Azimuth Beam Squint**	°	4	5
Front to Back Ratio (total power)	dB	>26 (typical >30)	>27 (typical >30)
Cross-Polar Discrimination (0°)	dB	22	19
Sector Power Ratio	%	3.0	2.6
<b>Elevation Parameters</b>			
Elevation (3 dB) Beam Width	°	3.8	3.5
Electrical Downtilt Range	°	1 – 10	1 – 10
First upper Sidelobe suppression	dB	15	13
First Nullfill Below Horizon	dB	-21	-16

<b>Parameter (ports)</b>			
<b>Frequency band</b>	<b>MHz</b>	<b>2300 - 2400</b>	<b>2490 - 2690</b>
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	1.2	1.2

## CMA-UBTLBHFHFFH/6516/20/21

### Mechanical parameters

<b>Mechanical specification:</b>	
Connectors	10 x 4.3 -10 female
Connector position	Bottom / Back
Lightning protection	DC grounded
Height mm (inch)	1899 (74.4)
Width mm (inch)	420 (16.5)
Depth mm (inch)	265 (10.4)
Antenna weight kg (lb)	37 (82)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	<880
Lateral N (lbf)	<220
Survival wind speed m/s (mph)	67 (151)
EPA m <sup>2</sup> (inch <sup>2</sup> )	
Colour radome	Light Grey, RAL 7035
Radome material	ASA
<b>Mounting hardware:</b>	
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 - 5

### RET info

Type CMA-RET-02

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. The antenna columns are R1, Y1 and Y2.

Type CMA-RET-02

RET spare part order number: 110086.

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

### Ordering information:

Product number	Product description