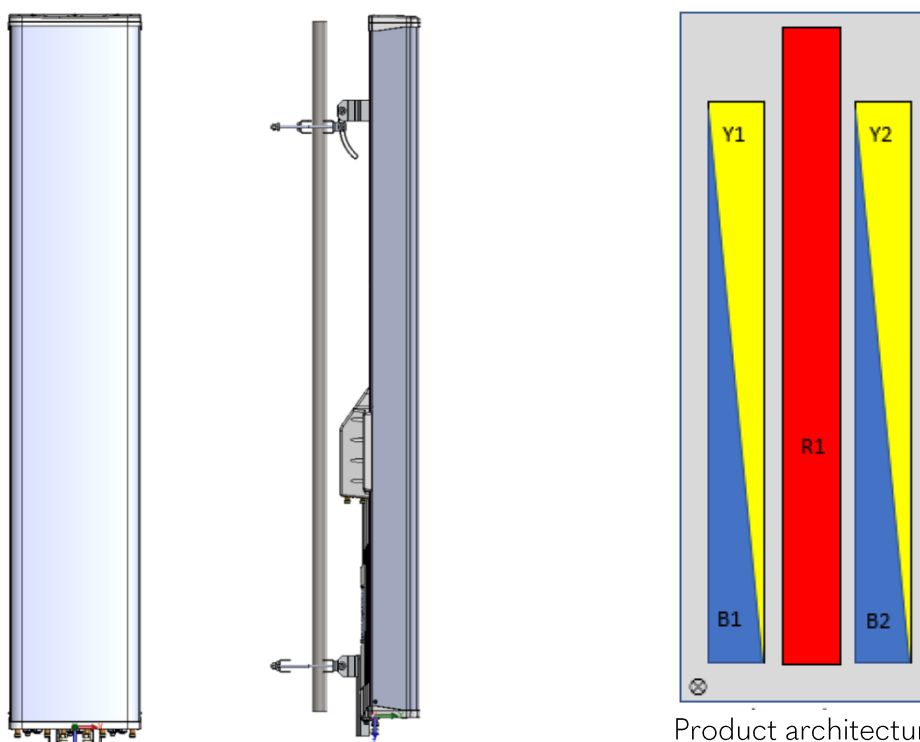


12122x

CMA-UBTLBHFHFFH/6517/20/21

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	17	20	21	20	21
EDT range	°	2 - 12	1 - 10		1 - 10	



This Antenna is a version of 12033x with diplex filters doubling the number of high band ports to 8.

Rural coverage:

Maximizes high-band coverage and achieves better load-balancing, cell-coverage, throughput, indoor coverage and subscriber satisfaction. Especially relevant when upgrading existing sites with new frequencies.

High capacity:

Increases CINR and maximizes spectrum efficiency (b/s/Hz), improving network throughput. Allows addition of more subscribers and maximizes the value of the investment in network and spectrum.

Road coverage:

Achieves virtually seamless cell-edge coverage, reduces dropped calls for people on the move and increases overall subscriber satisfaction.

Load balancing:

Relieves congestion on the low band by allowing greater use of the much greater high-band capacity. People who really need the low band can access it, and subscribers throughout the network experience higher throughput.

Indoor penetration/urban coverage:

Significantly improves indoor coverage in both rural and urban environments by upgrading the quality of the "last mile". This allows all users to enjoy all spectrum and secure high-band coverage, even deep indoors.

users to enjoy all spectrums and secure high-band coverage, even deep indoors.

Electrical Parameters R1:

Parameter (Radiation)			
Frequency band	MHz	698 - 896	880 – 960*
Gain	dBi	17.0	17.1
Azimuth Parameters			
Azimuth (3dB) Beam Width	°	68	71
Azimuth Beam Squint	°	3	5
Front to Back Ratio (total power)	dB	>25 (typical >27)	>24 (typical >26)
Cross-Polar Discrimination (0°)	dB	>25	>23
Sector Power Ratio	%	6.6	7.4
Elevation Parameters			
Elevation (3 dB) Beam Width	°	9.4	8.0
Electrical Downtilt Range	°	2 – 12	2 – 12
First upper Sidelobe suppression	dB	>15 (typical >20)	>16 (typical >20)
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	0.5	0.4

*Except 915 – 925 MHz

Electrical Parameters B1 and B2:

Parameter (Radiation)				
Frequency band	MHz	1710 - 1880	1850 - 1990	1920 - 2200
Gain	dBi	18.9	18.9	19.4
Azimuth Parameters				
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)	>24 (typical >28)
Cross-Polar Discrimination (0°)	dB	21	25	22
Sector Power Ratio	%	3.2	3.3	3.6
Elevation Parameters				
Elevation (3 dB) Beam Width	°	5.0	4.7	4.4
Electrical Downtilt Range	°	1 – 10	1 – 10	1 – 10
First upper Sidelobe suppression	dB	17	17	16
First Nullfill Below Horizon	dB	-24	-21	-21

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	1.2	1.2	1.2

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Electrical Parameters Y1 and Y2:

Parameter (Radiation)			
Frequency band	MHz	2300 - 2400	2490 - 2690
Gain	dBi	19.9	20.5
Azimuth Parameters			
Azimuth (3dB) Beam Width	°	58	56
Azimuth Beam Squint**	°	3	5
Front to Back Ratio (total power)	dB	>26 (typical >30)	>27 (typical >30)
Cross-Polar Discrimination (0°)	dB	21	19
Sector Power Ratio	%	3.1	2.6
Elevation Parameters			
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

Parameter (ports)			
Frequency band	MHz	2300 - 2400	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	1.3	1.3

Mechanical parameters:

Mechanical specification:	
Connectors	10 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	2252 (88.7)
Width mm (inch)	420 (16.5)
Depth mm (inch)	265 (10.4)
Antenna weight kg (lb)	42 (93)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	<1150
Lateral N (lbf)	<270
Survival wind speed m/s (mph)	67 (151)
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 - 5

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

Ordering information:

Product number	Product description
121220	CMA-UBTLBHFHFFH/6517/20/21/MET including standard tilt mount
121225	CMA-UBTLBHFHFFH/6517/20/21/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.