

20-Port Antenna
Frequency Range
HBPW
Gain
Tilt

R1	R2	Y1,Y3,Y5,Y7	Y2,Y4,Y6,Y8
698-960	698-960	1710-2690	1710-2690
65	65	65	65
16.5	16.5	18	17.5
2-12	2-12	2-12	2-12

Model Number	CP20-2L8M-65-17/18RT-1A
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Electrical specifications				
		R1, R2		
Frequency Range(MHz)		698-960		
		698-806	790-894	880-960
Gain(dBi)	at mid Tilt	16.0	16.3	16.6
	over all Tilts	15.8 ± 0.5	16.1 ± 0.5	16.4 ± 0.5
Horizontal Pattern:				
Azimuth Beamwidth(°)		66±6.5	62±4.5	58±6.5
Front to back Ratio Co-polar, ±30°(dB)		>25	>25	>25
Cross Polar Discrimination at Boresight(dB)		>15	>16	>16
Vertical Pattern:				
Vertical-3dB Beamwidth (°)		8.2±1.1	7.4±0.9	6.8±0.9
Electrical Downtilt (°)		2-12, continuously adjustable		
First Upper Side Lobe Suppression (dB)		>15	>15	>15
Cross-Polar Isolation (dB)		> 25		
Port to Port Isolation (dB)		> 25(R1//R2), > 28(R1//Y1~Y8)		
Max. Average Input Power per Port (W)		250		

Preliminary values based on NGMN-P-BASTA V12.0

Model Number		CP20-2L8M-65-17/18RT-1A				
		Y1, Y3, Y5, Y7				
Frequency Range(MHz)		1710-2690				
		1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain(dBi)	at mid Tilt	16.6	16.9	17.2	17.4	17.6
	over all Tilts	16.4±0.6	16.7±0.5	17.0±0.6	17.2±0.6	17.4±0.6
Horizontal Pattern:						
Azimuth Beamwidth (°)		68±7.5	66±7.5	62±6.5	58±7.0	58±7.5
Front to back Ratio Co-polar, ±30° (dB)		>22	>22	>23	>24	>24
Cross Polar Discrimination at Boresight (dB)		>16	>16	>16	>17	>17
Vertical Pattern:						
Vertical-3dB Beamwidth (°)		7.4±0.6	6.8±0.5	6.4±0.5	5.9±0.4	5.4±0.6
Electrical Downtilt (°)		2-12, continuously adjustable				
First Upper Side Lobe Suppression (dB)		>15	>15	>15	>15	>15
Cross-Polar Isolation (dB)		> 26				
Port to Port Isolation (dB)		> 26				
Max. Average Input Power per Port (W)		200				

Preliminary values based on NGMN-P-BASTA V12.0

Model Number		CP20-2L8M-65-17/18RT-1A				
		Y2, Y4, Y6, Y8				
Frequency Range(MHz)		1710-2690				
		1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain(dBi)	at mid Tilt	16.2	16.6	16.8	17.2	17.2
	over all Tilts	16.0±0.5	16.4±0.5	16.6±0.5	17.0±0.5	17.0±0.5
Horizontal Pattern:						
Azimuth Beamwidth(o)		68±6.5	65±6.5	62±6.5	58±5.0	58±6.5
Front to back Ratio, ±30°(dB)		≥25	≥25	>25	≥25	≥25
Cross Polar Discrimination at Boresight(dB)		>16	>16	>17	>18	>18
Vertical Pattern:						
Elevation Beamwidth(o)		6.8±0.5	6.4±0.4	6.0±0.5	5.2±0.5	4.8±0.6
Electrical Downtilt(o)		2-12, continuously adjustable				
First Upper Side Lobe Suppression (dB)		>15	>15	>15	>15	>15
Cross-Polar Isolation (dB)		> 26				
Port to Port Isolation (dB)		> 26				
Max. Average Input Power per Port (W)		200				
Preliminary values based on NGMN-P-BASTA V12.0						
Electrical specifications, all systems:						
Polarization		+45° /-45°				
Impedance (Ω)		50				
VSWR		<1.5				
Return Loss (dB)		> 14				
PIM3 (2x43 dBm carrier) (dBc)		<-150				
Lightning Protection		DC Ground				

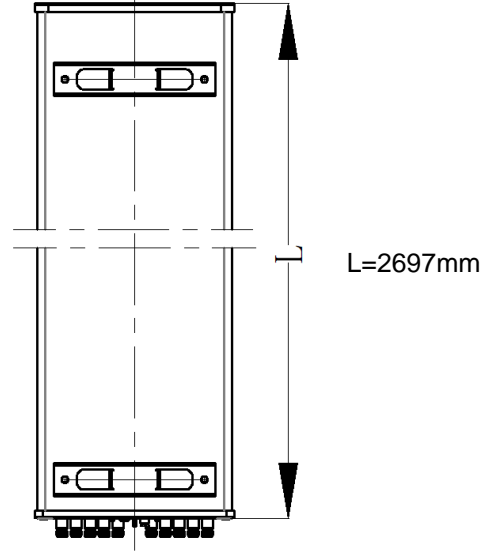
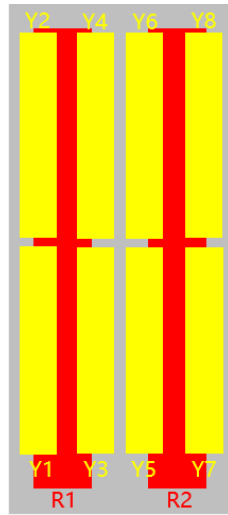
Preliminary values based on NGMN-P-BASTA V12.0



Model Number	CP20-2L8M-65-17/18RT-1A
Mechanical Specifications	
Connector Type	4.3/10(F) x 20
Connector position	Bottom
Electrical Tilt Control	Integrated RET, Each Band Individually Adjustable
Mechanical Tilt Range	0-10
Radome Material	Fiberglass
Antenna Weight(kg)	42 /47.5 (clamps incl.)
Bracket Diameter(mm)	50-125
Maximum Wind Speed(km/h)	200
Wind Load frontal [N] at 150 Km/h	800
Wind Load rear side [N] at 150 Km/h	755
Wind Load lateral [N] at 150 Km /h	335
Operating Temperature (°C)	-40 ~+60
Antenna Dimensions (H x W x D) (mm)	2697x469x205
Packing Size (H x W x D) (mm)	2930x544x280

Integrated RET Specifications	
Protocols	Compliant With AISGV2.0 And 3GPP
Supply Voltage, VDC	10-30DC
Power Consumption	<2W (standby); < 10W (motor actived)
Safety Standard	Compliant to EN 60950/UL 60950/ RoHs (Restriction of Hazardous Substances), CE
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, Line to Ground 8/20 us @ 6kA ≥±5 Repetitions Line to line , 8/20 us @ 5kA ≥±5 Repetitions
Connectors	2 x 8 Pins Connector According To IEC60130-9 AND AISG 1 x Daisy Chain In : Male 1 x Daisy Chain Out : Female Pin3:RS485B; Pin5:RS485A; Pin6:10~30V; Pin7: DC return Female connector: 4 PINs ,Male connector: 4 PINs

Arrays of the antenna



Ports of the antenna

