

2G4WFD-21UE

12 Port Antenna / 2L4H / 2.0m

PROSE

- 2×(698-960) + 4×(1695-2690) MHz
- Integrated RET (AISG 2.0 Compliant), Field Exchangeable
- 4.3-10 Connectors
- Y1-Y4 Support FDD Beamforming

Electrical Data (BASTA)

Frequency(MHz)		2×(698-960)			4×(1695-2690)					
		698-824	791-894	880-960	1695-1990	1920-2180	2300-2400	2490-2690		
Gain	R1/R2	Mid Tilt	dBi	14.6	14.8	15.1				
		Over All Tilts		14.5±0.5	14.7±0.5	15.0±0.5				
	Y1/Y2/Y3	Mid Tilt					15.7	16.7	17.3	17.2
	/Y4	Over All Tilts					15.6±0.8	16.6±0.8	17.2±0.8	17.2±0.8
Polarization			°	±45°						

Horizontal Pattern

3dB Azimuth Beamwidth	°	64±6	60±5	58±5	94±15	90±12	73±8	68±15
Front to Back Ratio, 180°±30°	dB	> 25	> 25	> 26	> 25	> 26	> 26	> 25
Cross-Polar Discrimination								
At Mechanical Boresight 0°		> 21	> 21	> 21	> 18	> 18	> 18	> 18
Ratio Sector ±60°		> 10	> 9	> 9	> 10	> 10	> 7	> 7

Vertical Pattern

3dB Elevation Beamwidth	°	11.4±1.0	10.6±0.5	9.5±0.6	5.3±0.5	4.8±0.5	4.3±0.4	4.0±0.4
Electrical Downtilt		2-12			2-12			
1st Upper Sidelobe Suppression	dB	> 16			> 16			

RF Parameters

VSWR		< 1.5	
Intra - Cluster Isolation	dB	> 25	> 25
Inter - Cluster Isolation		> 25	> 22
3rd PIM(2 x 43 dBm)	dBc	< -153	
Impedance	Ω	50	
Maximum Effective Power per Port	W	300	250

— Maximum Effective Power Whole Antenna: 1200 W.

5G NR Electrical Properties

Frequency(MHz)		1695-2690			
		1695-1880	1920-2200	2300-2400	2500-2690
Single column beam					
Gain	dBi	15.6±0.8	16.6±0.8	17.2±0.8	17.2±0.8
Cross polar ratio (0°)	dB	16	16	16	16
Front to back ratio	dB	24	25	25	25
Vertical 3dB beam width	°	5.3±0.5	4.8±0.5	4.3±0.4	4.0±0.4
Side lobe suppression for frist side lobe above main beam	dB	16	16	16	16
NR Broadcast beam					
Gain	dBi	17.1	17.5	17.7	17.8
Cross polar ratio (0°)	°	16	16	16	16
Front to back ratio	dB	24	25	25	25
Vertical 3dB beam width	°	5.3±0.5	4.8±0.5	4.3±0.4	4.0±0.4
NR Service beam					
0°direct beam gain	dBi	21.1	22.2	22.8	22.9
0°direction beam horizontal 3dB beam width	°	25	23	20	18
30°direction beam gain	dB	20.1	21.2	21.1	21.2
30°direction beam horizontal 3dB beam width	dB	28	26	24	22

Mechanical Data (BASTA)

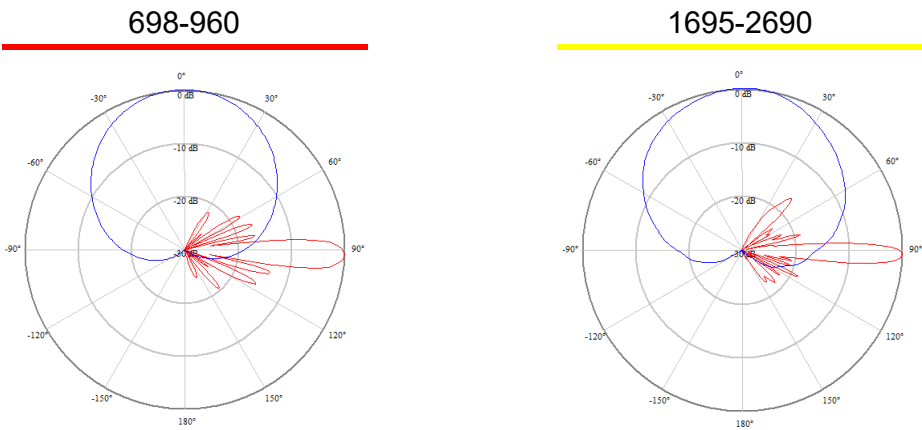
Connector Type	12 x 4.3-10 Female, 1 x 4.3-10 Cal	
Connector Position	Bottom	
Lightning Protection	DC Ground	
Radome Material	Fiberglass	
Radome Color	Light Grey	
Antenna Net Weight	32 kg	70.5 lb
Shipping Weight	45 Kg	99.2 lb
Antenna Dimensions (H x W x D)	1999 x 498 x 197 mm	78.7 x 19.6 x 7.8 in
Packing Size (H x W x D)	2140 x 575 x 370 mm	84.3 x 22.6 x 14.6 in
Survival Wind Speed	241 km/h	150 mph
Wind Load @150 km/h (Frontal / Lateral / Max)	793 / 294 / 961 N	178 / 66 / 216 lbf
Mast Diameter Supported	50 - 122 mm	2.0 - 4.8 in
Relative Humidity	5% - 95%	
Operating Temperature Range	-40 ~ +70 °C	-40 ~ +158 °F



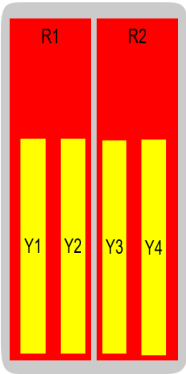
RET Specification (BASTA)

Compatible Standards	AISG2.0/ 3GPP
Power Consumption	≤2(stand by); ≤13(operating)
Configuration Management	Integrated RET, pre-configured
Software Upgradability	True
Replaceability in Field	True

Pattern (Sample for reference)



Layout



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Array	Connector	Frequency (MHz)	Sub Unit #	RET Type	RET Serial*
●R1	1 - 2	698-960	1	MRET	RB.....XYYxxxxx-MM
●R2	3 - 4	698-960	3	MRET	RB.....XYYxxxxx-MM
●Y1	5 - 6	1695-2690	2	MRET	RB.....XYYxxxxx-MM
●Y2	7 - 8	1695-2690	2	MRET	RB.....XYYxxxxx-MM
●Y3	9 - 10	1695-2690	2	MRET	RB.....XYYxxxxx-MM
●Y4	11 - 12	1695-2690	2	MRET	RB.....XYYxxxxx-MM

*Remark: X – Year, YY – Week , xxxxx – Serial Number

Accessories

Item	Model	Weight	Mechanical Tilt Range (°)
Mounting Kit	RAPMK-01	3.8 kg / 8.4 lb	0-10

Compliance

- Our quality assurance system and our environmental management system apply to the entire company and are certified according to EN ISO 9001, EN ISO 14001 and ISO45001
- Our products are compliant to the EU Directive RoHS as well as to other environmentally relevant regulations (e.g. REACH)



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