

2G2W4W4R4TAE-07

32 Port Antenna / Hybrid 2L2H+2TB+2.6TDD+3.5TDD / 2.0m

PROSE

- 2 x (698-960) + 2 x (1710-2690) + 4 x (1710-2690) (twinbeam) MHz + 4 x (2300-2690) (TDD) + 4 x (3300-3800) (TDD)
- Integrated RET (AISG 2.0 Compliant), Field Exchangeable
- 4.3-10 Connectors + MQ4&MQ5
- Integrated diplexer in element level for TDD array, independent tilt control

Electrical Data (FDD) (BASTA)

Frequency(MHz)		2 x (698-960)			2 x (1710-2690)				
		698-806	790-862	880-960	1710-1900	1900-2180	2300-2400	2500-2690	
Gain	R1/R2/Y5 Mid Tilt	dBi	15.0	15.2	15.5	15.8	16.4	16.5	17.0
	-Y10 Over All Tilts		14.9±0.6	15.2±0.6	15.4±0.6	15.8±0.6	16.4±0.6	16.5±0.5	17.0±0.5
Polarization		°	±45°						

Horizontal Pattern

3dB Azimuth Beamwidth	°	66±6	65±5	63±6	62±5	64±6	65±6	60±5
Beam Peak Position	dB	/	/	/	/	/	/	/
Front to Back Ratio, Total Power, 180°±30°		> 22	> 24	> 25	> 26	> 26	> 26	> 27
Cross-Polar Discrimination								
At Mechanical Boresight 0°		> 18	> 18	> 18	> 20	> 20	> 20	> 18
Over Sector -10dB		> 9	> 9	> 9	> 10	> 7	> 5	> 6

Vertical Pattern

3dB Elevation Beamwidth	°	10.8±1.0	9.8±0.8	9.0±0.8	9.2±0.8	8.0±0.8	7.2±0.6	6.3±0.6
Electrical Downtilt		2-12			2-12			
1st Upper Sidelobe Suppression	dB	> 16	> 16	> 16	> 17	> 17	> 17	> 17

RF Parameters

VSWR		< 1.5	
Intra - Cluster Isolation	dB	25	25
Inter - Cluster Isolation		26	
Beam Isolation		/	/
3rd PIM(2 x 43 dBm)	dBc	< -150	
Impedance	Ω	50	
Maximum Effective Power Per Port	W	300	250

Electrical Data (FDD) (BASTA)

4 x (1710-2690)(twinbeam)

Frequency(MHz)							
		1710-1920	1920-2170	2300-2400	2500-2690		
Gain	R1/R2/Y5	Mid Tilt	dBi	16.3	16.9	17.4	17.4
	-Y10	Over All Tilts		16.2±0.5	16.9±0.5	17.3±0.5	17.4±0.5
Polarization			°	±45°			

Horizontal Pattern

3dB Azimuth Beamwidth	°	34±3	32±2	28±2	25±2
Beam Peak Position	dB	±29	±28	±23	±22
Front to Back Ratio, Total Power, 180°±30°		> 26	> 27	> 27	> 27
Cross-Polar Discrimination		> 20	> 20	> 15	> 16
At Mechanical Boresight 0°		> 10	> 10	> 8	> 10
Over Sector -10dB					

Vertical Pattern

3dB Elevation Beamwidth	°	9.2±0.8	8.0±0.8	7.2±0.6	6.5±0.6
Electrical Downtilt		2-10			
1st Upper Sidelobe Suppression	dB	> 17	> 17	> 17	> 17

RF Parameters

VSWR		< 1.5
Intra - Cluster Isolation	dB	25
Inter - Cluster Isolation		26
Beam Isolation		16
3rd PIM(2 x 43 dBm)	dBc	< -150
Impedance	Ω	50
Maximum Effective Power Per Port	W	200

Electrical Data (TDD) (BASTA)

Frequency(MHz)		4 x (2300-2690)		4 x (3300-3800)	
		2300-2690		3300-3800	
Polarization	°	±45°			
Electrical Downtilt		2-12			
Single column beam					
Gain over All Tilts	dBi	14.3		14.8	
Horizontal 3dB Beamwidth	°	93±15		65±15	
Vertical 3dB Beamwidth		7.0±0.6		5.2±0.5	
Cross-Polar Discrimination at Mechanical Boresight	dB	> 16		> 16	
1st Upper Sidelobe Suppression		> 16		> 16	
Front to Back Ratio, Total Power, 180°±30°		> 23		> 25	
Broadcast 65° beam					
Gain over All Tilts	dBi	16.3		14.8	
Horizontal 3dB Beamwidth	°	65		65	
Cross-Polar Discrimination at Mechanical Boresight	dB	> 15		> 15	
Front to Back Ratio, Total Power, 180°±30°		> 22		> 22	
Service beam					
0° direction Gain over All Tilts	dBi	20.1		19.4	
0° direction Horizontal 3dB Beamwidth	°	25		19	
30° direction Gain over All Tilts	dBi	19.3		18.6	
30° direction Horizontal 3dB Beamwidth	°	29		23	
Soft split beam					
Coupling Factor (Cal Port to RF Ports)	dB	-26±2			
Max Amp. Tolerance (Cal Port to RF Ports)		0.9			
Max Phase Tolerance (Cal Port to RF Ports)	°	9			
RF Parameters					
VSWR		< 1.5			
Intra - Cluster Isolation	dB	25			
Inter - Cluster Isolation		20			
Impedance	Ω	50			
Maximum Effective Power Per Port	W	75			

— Maximum Effective Power Whole Antenna: / W.

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Mechanical Data (BASTA)

Connector Type	16 x 4.3-10 Female + 4 x Cluster	
Connector Position	Bottom	
Lightning Protection	DC Ground	
Radome Material	Fiberglass	
Radome Color	Light Grey	
Antenna Net Weight	46.3 kg	102.1 lb
Shipping Weight	59.9 kg	132.1 lb
Antenna Dimensions (H x W x D)	2070 x 580 x 210 mm	81.5 x 22.8 x 8.3 in
Packing Size (H x W x D)	2220 x 725 x 345 mm	87.4 x 28.5 x 13.6 in
Survival Wind Speed	241 km/h	150 mph
Wind Load @150 km/h (Frontal / Lateral / Max)	626 / 287 / 987 N	141 / 65 / 222 lbf
Mast Diameter Supported	50 - 110 mm	2.0 - 4.3 in
Relative Humidity	5% - 95%	
Operating Temperature Range	-40 ~ +70 °C	-40 ~ +158 °F

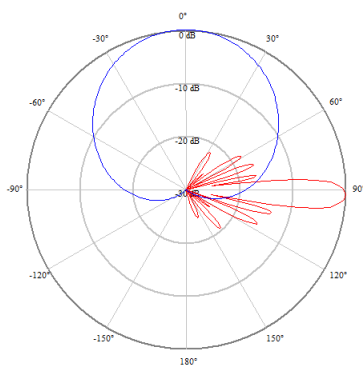


RET Specification (BASTA)

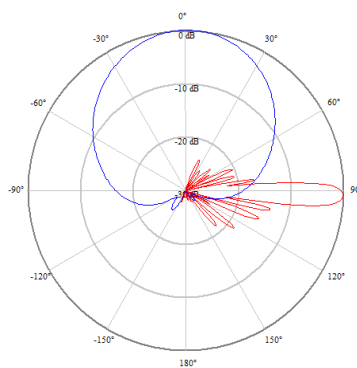
Compatible Standards	AISG2.0/ 3GPP
Power Consumption	≤2(stand by); ≤13(operating)
Configuration Management	Integrated RET, pre-configured
Software Upgradability	True
Replaceability in Field	True

Pattern (sample for reference)

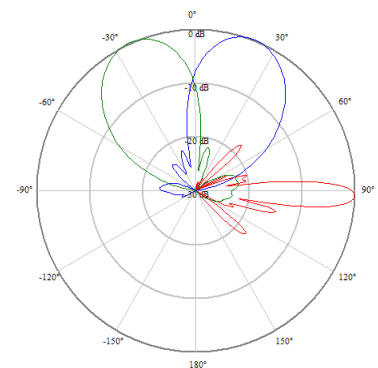
698-960



1710-2690



1710-2690

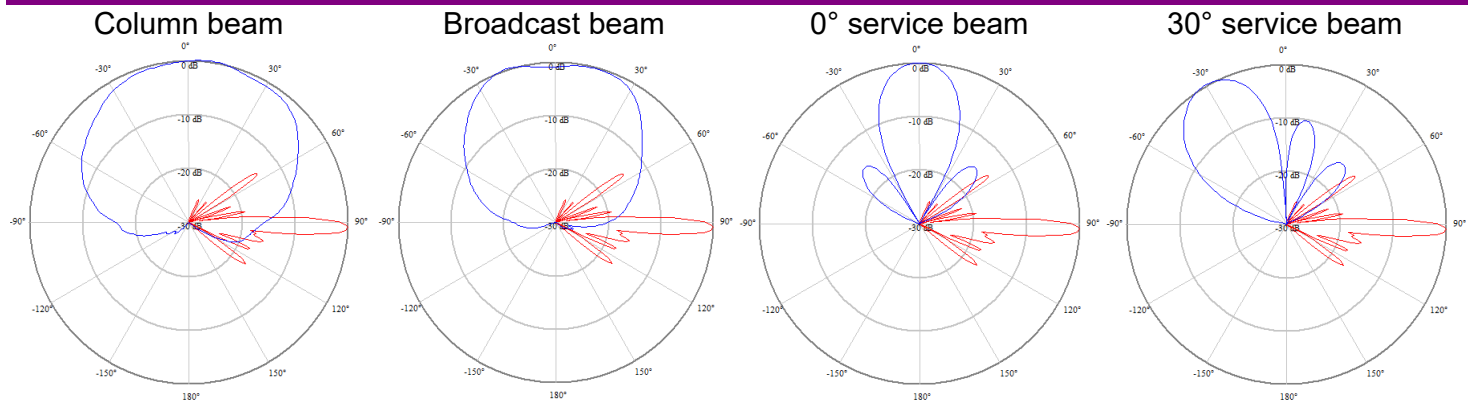


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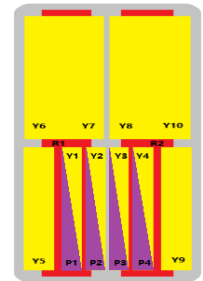
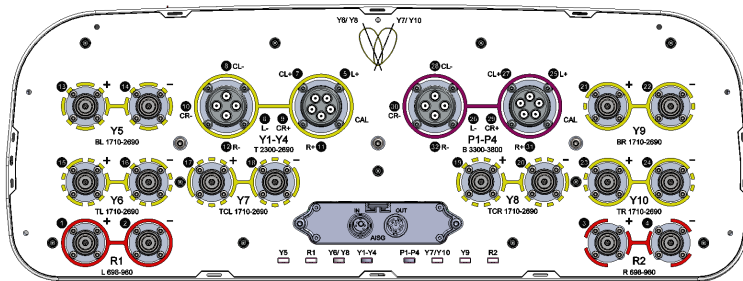
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PROSE

2300-3800



Layout



Array	Connector	Frequency (MHz)	Sub Unit #	RET Type	RET Serial*
●R1	1 - 2	698-960	2	MRET	RB.....XYYxxxxx-MM
●R2	3 - 4	698-960	8	MRET	RB.....XYYxxxxx-MM
●Y1	5 - 6	2300-2690	4	MRET	RB.....XYYxxxxx-MM
●Y2	7 - 8	2300-2690	4	MRET	RB.....XYYxxxxx-MM
●Y3	9 - 10	2300-2690	4	MRET	RB.....XYYxxxxx-MM
●Y4	11 - 12	2300-2690	4	MRET	RB.....XYYxxxxx-MM
●Y5	13 - 14	1710-2690	1	MRET	RB.....XYYxxxxx-MM
●Y6	15 - 16	1710-2690	3	MRET	RB.....XYYxxxxx-MM
●Y7	17 - 18	1710-2690	6	MRET	RB.....XYYxxxxx-MM
●Y8	19 - 20	1710-2690	3	MRET	RB.....XYYxxxxx-MM
●Y9	21 - 22	1710-2690	7	MRET	RB.....XYYxxxxx-MM
●Y10	23 - 24	1710-2690	6	MRET	RB.....XYYxxxxx-MM
●P1	25 - 26	3300-3800	5	MRET	RB.....XYYxxxxx-MM
●P2	27 - 28	3300-3800	5	MRET	RB.....XYYxxxxx-MM
●P3	29 - 30	3300-3800	5	MRET	RB.....XYYxxxxx-MM
●P4	31 - 32	3300-3800	5	MRET	RB.....XYYxxxxx-MM

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

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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 OHSAS 18001
- Our products are compliant to the EU Directive RoHS as well as to other environmentally relevant regulations (e.g. REACH)



While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.