

TECHNICAL SPECIFICATION

12-port Sector Antenna,
2×690-960&4×1710-2690MHz,65Deg,15&18dBi,Integrated RET

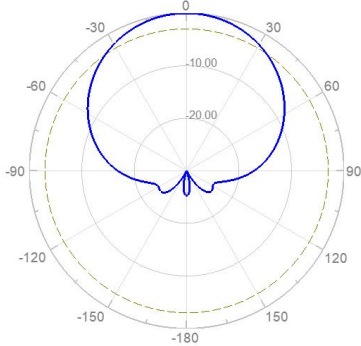
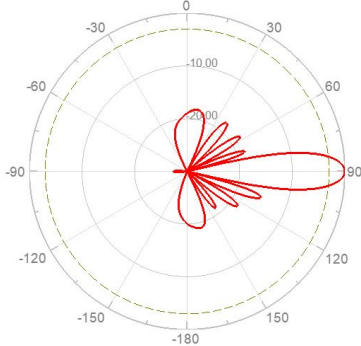
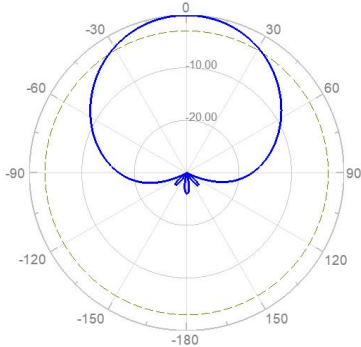
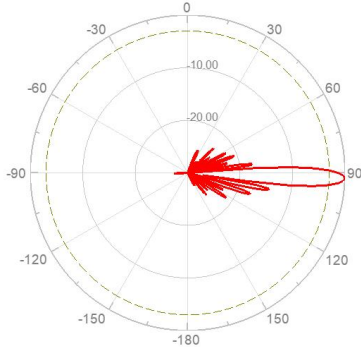
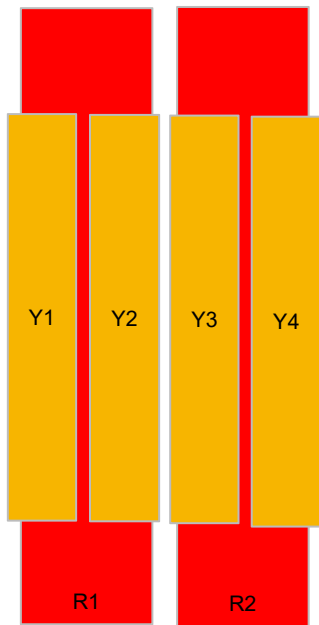


A.0	Oct 10, 2025	David	Michael	Klaus
Version	Date	Prepared	Reviewed	Approved

Electrical Specifications

Description	12-port Sector Antenna, 2×690-960&4×1710-2690MHz,65Deg,15&18dBi,Integrated RET				
ZTT Product Code	HBZ48P651518				
Frequency Range	MHz	FDD:2×690-960(R1/R2)			
Frequency Band	MHz	690-806	790-894	880-960	
Gain Over All Tilts	dBi	13.8±0.3	14.4±0.5	14.9±0.4	
Gain by Tilt Average Mid	dBi	13.8	14.3	14.8	
Horizontal 3dB Beam Width	Deg	64±5	62±5	58±4	
Vertical 3dB Beam Width	Deg	15.0±1.0	14.3±0.9	13.5±0.7	
1 st Upper Side Lobe Suppression Above Main Beam	dB	>15			
Front to Back Ratio at 180Deg ±30Deg	dB	>25			
Cross Polar Ratio 0Deg	dB	>15			
Electrical Downtilt	Deg	2-14,Continuously adjustable			
VSWR	/	<1.5			
Isolation between Ports	dB	>25			
Intermodulation IM3	dBc	≤-153(2×43 dBm carrier)			
Max. Power Per Port	Watt	120(at 50℃ ambient temperature)			
Frequency Range	MHz	FDD:4×1710-2690(Y1/Y2/Y3Y4)			
Frequency Band	MHz	1710-1990	1920-2200	2300-2500	2490-2690
Gain Over All Tilts	dBi	17.4±0.4	17.7±0.7	18.2±0.6	17.9±0.7
Gain by Tilt Average Mid	dBi	17.5	17.6	18.1	17.9
Horizontal 3dB Beam Width	Deg	64±6	62±6	56±6	57±6
Vertical 3dB Beam Width	Deg	7.3±0.7	7.1±0.6	6.8±0.5	6.5±0.5
1 st Upper Side Lobe Suppression Above Main Beam	dB	>15			
Front to Back Ratio at 180Deg ±30Deg	dB	>25			
Cross Polar Ratio 0Deg	dB	>15			
Electrical Downtilt	Deg	2-12,Continuously adjustable			
VSWR	/	<1.5			
Isolation between Ports	dB	>25			

Intermodulation IM3	dBc	≤-153(2×43 dBc carrier)
Max. Power Per Port	Watt	120(at 50℃ ambient temperature)
Maximum effective power whole antenna.	Watt	1200(at 50℃ ambient temperature)
Mechanical Specifications		
Antenna Dimensions	mm	1400×498×186
Antenna Net Weight	kg	31.7
Packing Dimensions	mm	1638×550×265
Antenna Gross Weight	kg	44.9
Connector Type	/	12×4.3-10 Female
Connector Position	/	Bottom
Radiator Material	/	Low loss circuit board & Aluminum
Radome Material / Color	/	Fiberglass / Light Grey RAL7035
Reflector Material	/	Aluminum
Storage Temperature	℃	-40 to +60
Operating Temperature	℃	-40 to +60
Humidity	/	5% to 95%
Max. operational Wind Speed	km/h	200
Wind Load @Rated Wind Front	N	1560
Wind Load @Rated Wind Side	N	241
Wind Load @Rated Wind Rear	N	1748
Lightning Protection	/	DC ground
Accessories		
Downtilt Kit (mechanical)	Deg	0-12
Mounting Accessories (clamp)	/	Included with antenna
Mounting Pipe Diameter	mm	50-115
Internal RET Specifications		
RCU (remote control unit)	/	Replaceable RET (can be exchangeable without exchanging antenna)
		AISG2.0 /3GPP
Input Voltage Range	V	10-30 DC
Power Consumption	W	< 10 (motor activated , single RET) < 2 (stand by, single RET)
Adjustment Time (full range)	s	< 120 (typically, depending on antenna type)
RET Connector	/	1 pair of AISG 5 pin male & female
Pin Assignment According AISG	/	5-pin circular connector conforming to IEC 60130-9 - Ed. 3.0

Lightning Protection		kA	5 (8/20 μs differential mode), 8 (8/20 μs common mode)	
Reference Pattern				
FDD:690-960MHz				
Horizontal Pattern		Vertical Pattern		
				
FDD:1710-2690MHz				
Horizontal Pattern		Vertical Pattern		
				
Layout of Array				
Array	Connector	Frequency(MHz)	RET Serial	
R1	1-2	690-960	ZTR1...01	
R2	3-4	690-960	ZTR2...02	
Y1	5-6	1710-2690	ZTY1...03	
Y2	7-8	1710-2690	ZTY2...04	
Y3	9-10	1710-2690	ZTY3...05	
Y4	11-12	1710-2690	ZTY4...06	
All data are based on NGMN recommendations on Base Station Antenna Standards (BASTA V12.0).				

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