Spec No.: ZTT26-A050601

TECHNICAL SPECIFICATION

12-port Sector Antenna,
2×690-960&4×1695-2690MHz,65Deg,16&18dBi,Integrated RET

Version	Date	Prepared	Reviewed	Approved
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Electrical Specifications

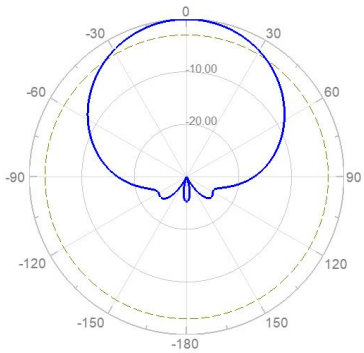
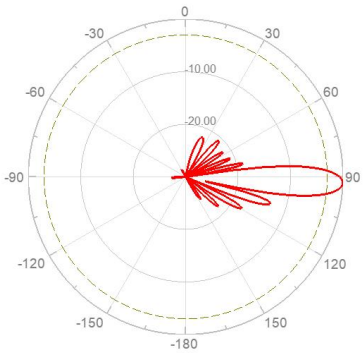
Description	12-port Sector Antenna, 2×690-960&4×1695-2690MHz,65Deg,16&18dBi,Integrated RET				
ZTT Product Code	**HBZ48P651618**				
Frequency Range	MHz	FDD:2×690-960(**R1/R2**)			
Frequency Band	MHz	690-806	790-894	880-960	
Gain Over All Tilts	dBi	15.4±0.4	15.5±0.4	15.8±0.3	
Gain by Tilt Average Mid	dBi	15.4	15.6	15.8	
Efficiency Average	%	81	80	80	
Horizontal 3dB Beam Width	Deg	63.7±4.2	62.5±3.5	59.0±3.2	
Vertical 3dB Beam Width	Deg	10.8±1.6	10.1±1.1	9.4±0.6	
1st Upper Side Lobe Suppression Above Main Beam	dB	≥15			
Front to Back Ratio at 180Deg ±30Deg	dB	≥24			
Cross Polar Ratio 0Deg	dB	≥15			
Electrical Downtilt	Deg	**2-12,Continuously adjustable**			
VSWR	/	≤1.5			
Intraband Isolation	dB	≥25			
Interband Isolation	dB	≥25			
Intermodulation IM3	dBc	≤-150(2×43 dBm carrier)			
Max. Power Per Port	Watt	300(at 50℃ ambient temperature)			
Frequency Range	MHz	FDD:4×1695-2690(**Y1/Y2/Y3/Y4**)			
Frequency Band	MHz	1695-1990	1920-2200	2300-2500	2490-2690
Gain Over All Tilts	dBi	17.5±0.5	17.6±0.6	18.4±0.4	18.5±0.4
Gain by Tilt Average Mid	dBi	17.5	17.6	18.4	18.5
Efficiency Average	%	81	77	78	76
Horizontal 3dB Beam Width	Deg	64±5	62±5	55±6	57±6
Vertical 3dB Beam Width	Deg	7.9±0.7	7.1±0.6	6.4±0.5	6.1±0.5
1st 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
Intraband Isolation	dB	≥25
Interband Isolation	dB	≥25
Intermodulation IM3	dBc	≤-150(2×43 dBm carrier)
Max. Power Per Port	Watt	250(at 50℃ ambient temperature)
Impedance	Ohm	50
Polarization	Deg	±45
Mechanical Specifications		
Antenna Dimensions	mm	1820×498×186
Antenna Net Weight	kg	31.5
Packing Dimensions	mm	2100×550×265
Antenna Gross Weight	kg	50.5
Connector Type	/	12×4.3-10 Female
Connector Position	/	Bottom
Radiator Material	/	Low loss circuit broad & Aluminum
Radome Material / Color	/	Fiberglass / Light Grey RAL7035
Reflector Material	/	Aluminum
Storage Temperature	°C	-40 to +70
Operating Temperature	°C	-40 to +70
Humidity	/	5% to 95%
Ingress Protection	/	IP24
Port's Ingress Protection	/	IP65
Max. operational Wind Speed	km/h	200
Wind Load @Rated Wind Front	N	2028
Wind Load @Rated Wind Side	N	313
Wind Load @Rated Wind Rear	N	2273
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 exchangable without exchanging antenna)

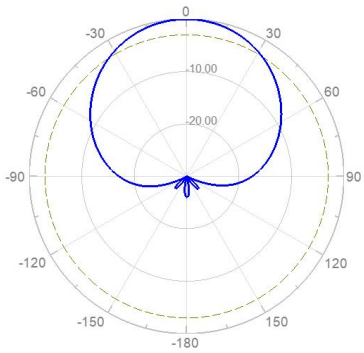
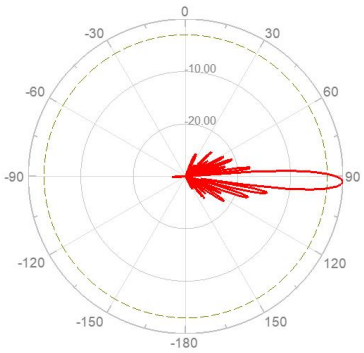
		AISG2.0/3GPP, AISG-ES-RAE V2.1.0
Input Voltage Range	V	10-30 DC
Power Consumption	W	< 10 (motor activated , single RET) < 2 (stand by, single RET)
Adjustment Time (full range)	s	< 120 (typically, depending on antenna type)
RET Connector	/	1 pair of AISG 5 pin male & female
Pin Assignment According AISG	/	8-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

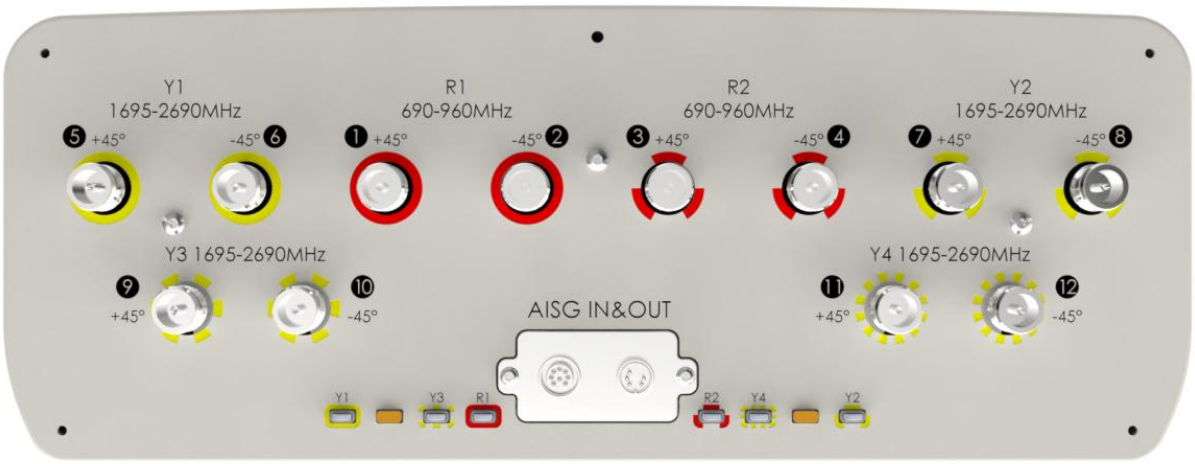
FDD:690-960MHz

Horizontal Pattern	Vertical Pattern
	

FDD:1695-2690MHz

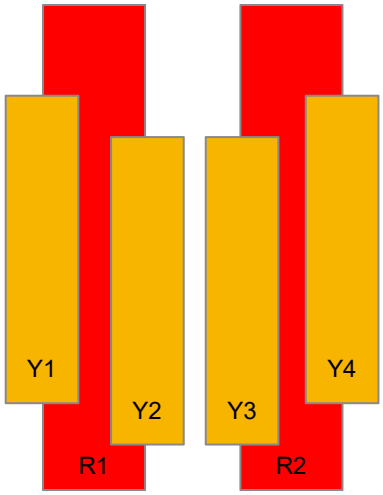
Horizontal Pattern	Vertical Pattern
	

Layout of Interface



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	1695-2690	ZTY1...03
Y2	7-8	1695-2690	ZTY2...04
Y3	9-10	1695-2690	ZTY3...05
Y4	11-12	1695-2690	ZTY4...06



All data are based on NGMN recommendations on Base Station Antenna Standards (BASTA V13.0).