

TECHNICAL SPECIFICATION

8-Port Sector Antenna,
2×690-960&2×1710-2690MHz, 33deg, 21&21dBi, Integrated RET



A.0	MAR 05,2025	Dawson	Michael	Mr.Wang
Version	Date	Prepared	Reviewed	Approved

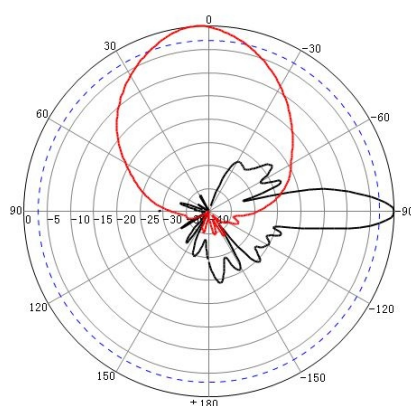
Electrical Specifications						
Description	8-Port Sector Antenna, 2×690-960&2×1710-2690MHz, 33deg, 21&21dBi, Integrated RET					
ZTT Product Code	HBZ44P3321					
Frequency Range	MHz	2×690-960(R1/R2)				
Frequency Band	MHz	690-806	790-896	880-960		
Gain Over All Tilts	dBi	20.5±0.3	20.8±0.4	21.0±0.3		
Gain by Tilt Average Min	dBi	20.8	21.2	21.2		
Gain by Tilt Average Mid		20.5	20.9	21.1		
Gain by Tilt Average Max		20.3	20.6	20.9		
Horizontal 3dB Beam Width	Deg	36±4	33±5	30±2		
Vertical 3dB Beam Width	Deg	8.2±0.3	7.7±0.4	7.2±0.5		
1 st Upper Side Lobe Suppression Above Main Beam	dB	≥18				
Front to Back Ratio at 180Deg ±30Deg	dB	≥30				
Cross-Polar Ratio 0Deg	dB	≥15				
Electrical Downtilt	Deg	2-10,Continuously adjustable				
VSWR	/	≤1.5				
Intraband Isolation	dB	≥26				
Intermodulation IM3	dBc	≤-150(2×43 dBm carrier)				
Max. Power Per Port	Watt	350(at 50℃ ambient temperature)				
Frequency Range	MHz	2×1710-2690(Y1/Y2)				
Frequency Band	MHz	1710-1880	1850-1990	1920-2180	2300-2400	2490-2690
Gain Over All Tilts	dBi	20.5±0.4	20.6±0.3	20.8±0.4	21.2±0.5	21.5±0.4
Gain by Tilt Average Min	dBi	20.9	20.9	21.1	21.5	21.8
Gain by Tilt Average Mid		20.6	20.7	20.9	21.3	21.6
Gain by Tilt Average Max		20.3	20.5	20.7	20.9	21.3
Horizontal 3dB Beam Width	Deg	37±4	35±5	33±5	31±3	30±4
Vertical 3dB Beam Width	Deg	8.1±0.4	7.8±0.7	7.5±0.5	7.3±4	7.1±3
1 st Upper Side Lobe Suppression Above Main Beam	dB	≥18				
Front to Back Ratio	dB	≥30				

at 180Deg ±30Deg		
Cross-Polar Ratio 0Deg	dB	≥15
Electrical Downtilt	Deg	2-10,Continuously adjustable
VSWR	/	≤1.5
Intraband Isolation	dB	≥26
Intermodulation IM3	dBc	≤-150(2×43 dBm carrier)
Max. Power Per Port	Watt	250(at 50℃ ambient temperature)
Max. Effective Power Whole	Watt	1000(at 50℃ ambient temperature)
Impedance	Ohm	50
Polarization	Deg	±45
Mechanical Specifications		
Antenna Dimensions	mm	2700×630×175
Antenna Net Weight	kg	48.3
Packing Dimensions	mm	2900×735×305
Antenna Gross Weight	kg	74.6
Connector Type	/	8×4.3-10 female
Connector Position	/	Bottom
Radiator Material	/	Aluminum and Low loss circuit board
Radome Material / Color	/	Fiberglass / Grey
Reflector Material	/	Aluminum
Storage Temperature	℃	-40 to +65
Operating Temperature	℃	-40 to +65
Humidity	/	5% to 95%
Max. operational Wind Speed	km/h	200
Wind Load @Rated Wind Front	N	2189
Wind Load @Rated Wind Side	N	252
Wind Load @Rated Wind Rear	N	2453
Lightning Protection	/	DC ground
Accessories		
Downtilt Kit (mechanical)	Deg	0-8
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)

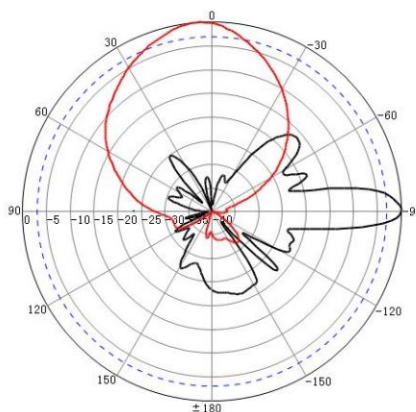
		AISG2.0 /3GPP
Input Voltage Range	V	10-30 DC
Power Consumption	W	< 10 (motor activated , single RET) < 2 (stand by, single RET)
Adjustment Time (full range)	s	< 120 (typically, depending on antenna type)
RET Connector	/	1 pair of AISG 5 pin male & female
Pin Assignment According AISG	/	5-pin circular connector conforming to IEC 60130-9 - Ed. 3.0
Lightning Protection	kA	5 (8/20 μ s differential mode), 8 (8/20 μ s common mode)

Reference Pattern

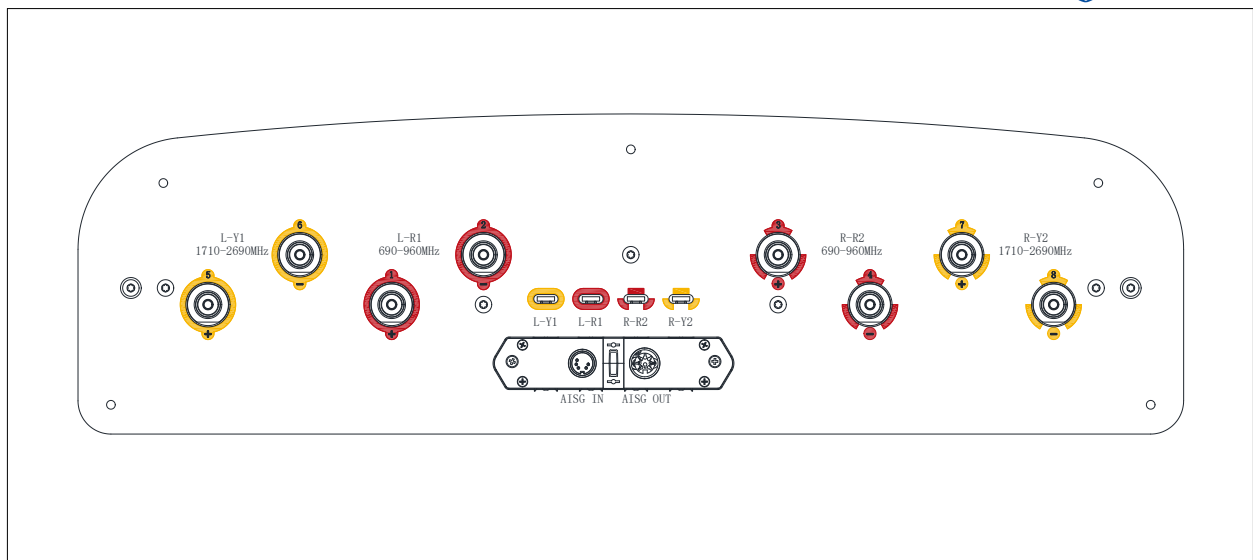
690-960MHz Horizontal & Vertical Pattern



1710-2690MHz Horizontal & Vertical Pattern

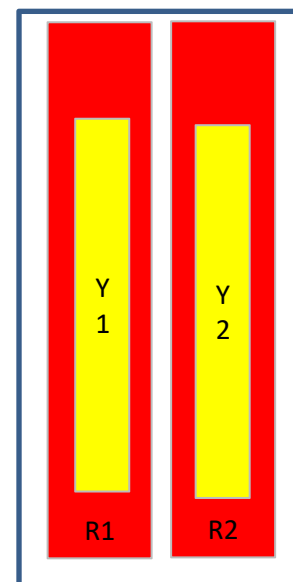


Layout of Interface



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	1710-2690	ZTY1...03
Y2	7-8	1710-2690	ZTY2...04



All data are based on NGMN recommendations on Base Station Antenna Standards (BASTA V11.1).