

TECHNICAL SPECIFICATION

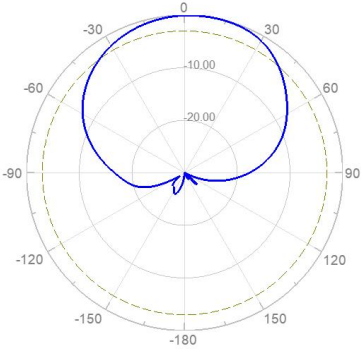
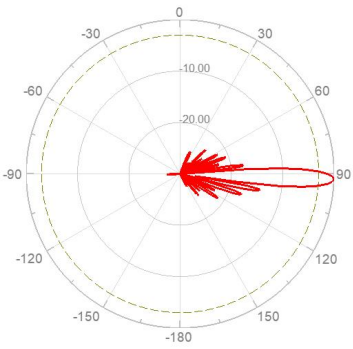
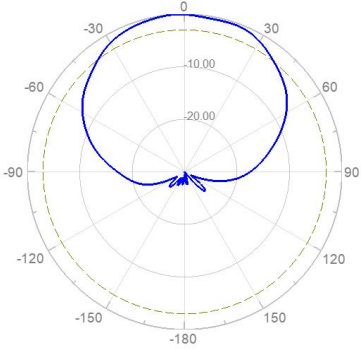
8-Port,X-Pol,TDD Antenna,Integrated RET
TDD:4×2300-2690MHz

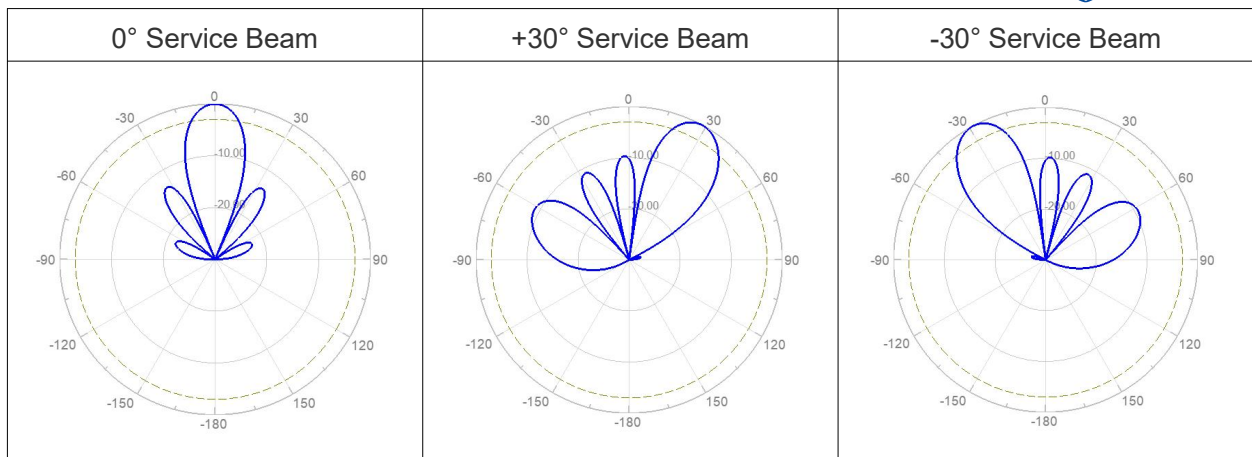


A.0	Sep 12,2024	Zack	Michael	Mr.Wang
Version	Date	Prepared	Reviewed	Approved

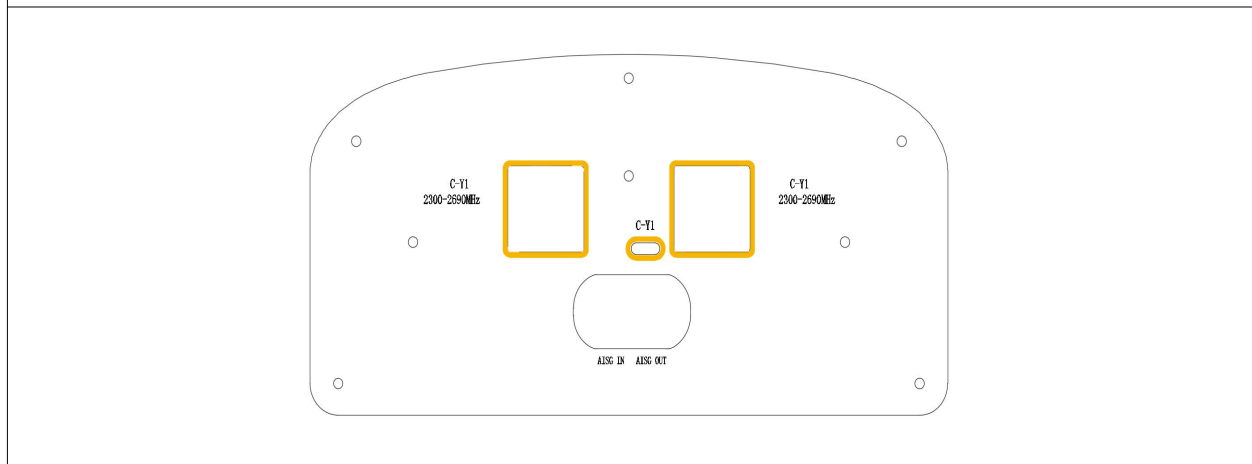
Electrical Specifications				
Description		8-Port,X-Pol,TDD Antenna,Integrated RET TDD:4×2300-2690MHz		
ZTT Product Code		HBN8U9017		
Frequency Range		MHz	TDD:4×2300-2690(Y1)	
Frequency Band		MHz	2300-2400	2496-2690
Coupling Factor between Calibration Port and Each Antenna Port		dB	-26±2	
Max.Amplitude Tolerance from Calibration Port to Input Ports		dB	≤0.9	
Max.Phase Tolerance from Calibration Port to Input Ports		Deg	≤7	
VSWR		/	≤1.5	
Intermodulation IM3		dBc	≤-150(2×43 dBm carrier)	
Electrical Downtilt		Deg	2-10,Continuously adjustable	
Max. Power Per Port		Watt	200(at 50°C ambient temperature)	
Co-polarization Isolation Between Ports		dB	≥25	
Cross-polarization Isolation Between Ports		dB	≥25	
Single Column Beam	Horizontal 3dB Beam Width	Deg	90±20	75±20
	Vertical 3dB Beam Width	Deg	5.0±0.5	4.5±0.5
	Gain Over All Tilts	dB _i	16.5±0.6	17.0±0.8
	Gain by Tilt Average Min	dB _i	16.9	17.3
	Gain by Tilt Average Mid	dB _i	16.6	16.9
	Gain by Tilt Average Max	dB _i	16.4	16.7
	1st Upper Side Lobe Suppression Above Main Beam	dB	≥18	
	Front to Back Ratio at 180Deg ±30Deg	dB	≥23	
	Broadcast Beam	Horizontal 3dB Beam Width	Deg	64±5
Vertical 3dB Beam Width		Deg	5.5±0.6	4.6±0.5
Gain Over All Tilts		Deg	18.0±0.5	18.2±0.5
Gain by Tilt Average Min		dB _i	18.3	18.6
Gain by Tilt Average Mid		dB _i	18.1	18.4
Gain by Tilt Average Max		dB _i	17.8	18.1
Cross-Polar Ratio 0Deg		dB	≥22	
1st Upper Side Lobe Suppression Above Main Beam		dB	≥18	
Front to Back Ratio at 180Deg ±30Deg		dB	≥28	

Service Beam	0° Beam Gain Over All Tilts	dBi	22.0±0.5	22.1±0.6
	0° Beam Gain by Tilt Average Min	dBi	22.4	22.7
	0° Beam Gain by Tilt Average Mid	dBi	22.1	22.5
	0° Beam Gain by Tilt Average Max	dBi	21.8	22.3
	0° Beam Horizontal 3dB Beam Width	Deg	23±2	23±2
	0° Beam Horizontal Sidelobe	dB	≥12	
	0° Beam Front to Back Ratio	dB	≥30	
	±30° Beam Gain Over All Tilts	dBi	21.0±0.5	21.1±0.4
	±30° Beam Gain by Tilt Average Min	dBi	21.4	21.5
	±30° Beam Gain by Tilt Average Mid	dBi	21.2	21.3
	±30° Beam Gain by Tilt Average Max	dBi	20.9	21.0
	±30° Beam Horizontal 3dB Beam Width	Deg	30±3	30±3
	±30° Beam Vertical 3dB Beam Width	Deg	5.6±0.5	4.7±0.4
	±30° Beam Vertical Sidelobe	dB	≥18	
	±30° Front to Back Ratio	dB	≥28	
Mechanical Specifications				
Antenna Dimensions	mm	1400×300×146		
Antenna Net Weight	kg	17.1		
Packing Dimensions	mm	1685×395×241		
Antenna Gross Weight	kg	27.9		
Connector Type	/	1×MQ4+1×MQ5		
Connector Position	/	Bottom		
Radiator Material	/	Low loss circuit broad		
Radome Material / Color	/	Fiberglass / Light Grey RAL7035		
Reflector Material	/	Aluminum		
Storage Temperature	°C	-40 to +60		
Operating Temperature	°C	-40 to +60		
Humidity	/	0% to 95%		
Max. operational Wind Speed	km/h	200		
Wind Load @Rated Wind Front	N	529		
Wind Load @Rated Wind Side	N	106		
Wind Load @Rated Wind Rear	N	593		
Lightning Protection	/	DC ground		
Accessories				
Downtilt Kit (mechanical)	Deg	0-12		


Mounting Accessories (clamp)	/	Included with antenna
Mounting Pipe Diameter	mm	50-125
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		
TDD:2300-2690		
Single Column Beam		
Horizontal Pattern		Vertical Pattern
		
Broadcast Beam		
		



Layout of Interface



Layout of Array

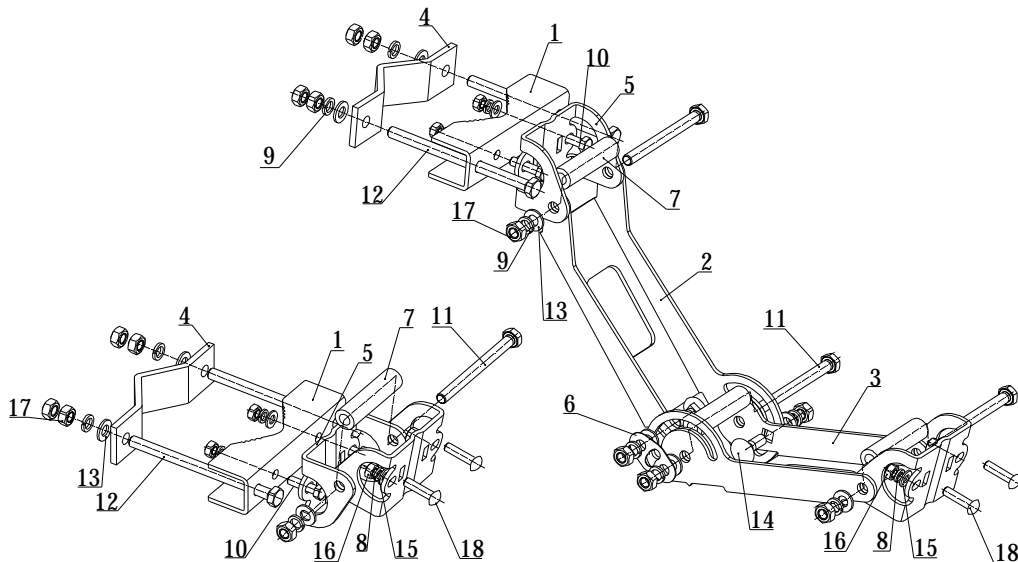
Array	Frequency(MHz)	RET Serial	
Y1	2300-2690	ZTY1...01	

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

0521A ANTENNA BRACKET COMPONENT SHEET

0521A 天线支架零件清单

PART NO. 序号	COMPONENT NAME 名称	QUANTITY 数量	REMARK 备注
1	U Clamp U 型槽夹板	2	Q235(hot-zinc coated)
2	Upper Branch Arm 上角臂	1	Q235(hot-zinc coated)
3	Lower Branch Arm 下角臂	1	Q235(hot-zinc coated)
4	Clamp 夹板	2	Q235(hot-zinc coated)
5	Branch Arm BASE 角臂座	4	Q235(hot-zinc coated)
6	DIAL 刻度盘	1	304(passivate)
7	Sleeve 隔离管	4	6063
8	Locked Washer $\phi 8$ 弹垫 $\phi 8$	8	304(passivate)
9	Locked Washer $\phi 10$ 弹垫 $\phi 10$	10	304(passivate)
10	Hex Bolt M8 \times 25 六角螺栓 M8 \times 25	4	35#(hot-zinc coated)
11	Hex Bolt M10 \times 110 六角螺栓 M10 \times 110	4	35#(hot-zinc coated)
12	Hex Bolt M10 \times 150 六角螺栓 M10 \times 150	4	35#(hot-zinc coated)
13	Washer $\phi 10$ 平垫 $\phi 10$	10	304(passivate)
14	Square Neck Bolt M10 \times 30 半圆头方颈螺栓 M10 \times 30	2	35#(hot-zinc coated)
15	Washer $\phi 8$ 平垫 $\phi 8$	8	304(passivate)
16	Nut M8 螺母 M8	8	35#(hot-zinc coated)
17	Nut M10 螺母 M10	14	35#(hot-zinc coated)
18	Square Neck Bolt M8 \times 25 方颈螺栓 M8 \times 25	4	35#(hot-zinc coated)
19	Angle Label L=1088, 0-16° 角度标签 L=1088, 0-16°	1	铜板纸(printing paper)



Instruction for Installation (安装说明书)

