

Hybrid antenna FDD+TDD

Model: HX-T401A



ELECTRICAL SPECIFICATIONS

		Frequency Range (MHz)	P1(2300-3800)		
			2300-2400	2490-2690	3300-3800
General Parameters	Polarization		±45°		
	Electrical Downtilt (°)		2-12		
	Electrical Downtilt accuracy (°)		±1		
	Coupling factor between calibration port and each antenna port(dB)		-26±2		
Calibration and Electrical Parameters	Max.amplitude tolerance from calibration port to input ports(dB)		≤1.0		
	Max.phase tolerance from calibration port to input ports(°)		≤8		
	Ports VSWR		≤1.5		
	Impedance (Ω)		50		
	Max Input Power (W)		1500		
	Co-polarization isolation between ports(dB)		≥25		
	Cross-polarization isolation between ports(dB)		≥25		
Radiation Parameters	Single Column Beam	Horizontal 3dB beam width(°)	66±10	65±10	62±10
		Gain (dBi)	15.8±1	16±1	16.2±1
		Vertical 3dB beam width(°)	6±1	5.5±1	5±1
		Cross polar ratio(0°)(dB)	≥15	≥16	≥16
		Cross polar ratio(±60°)(dB)	≥8	≥8	≥8
		Front to back ratio(dB)	≥24	≥25	≥25
		Upper side lobe suppression (dB)	≤-15	≤-16	≤-15
	Broadcast beam	Gain (dBi)	15.8±1	16±1	16.2±1
		SPR(±32.5°)(%)	70±15	70±15	70±15
		SPR(±60°)(%)	≥85	≥85	≥85
		Vertical 3dB beam width(°)	5.2±1	5.0±1	4.8±1
		Front to back ratio(dB)	≥23	≥24	≥25
		Upper side lobe suppression (dB)	≤-15	≤-16	≤-15
	Service beam	0° direct beam gain(dBi)	19.8±1	20±1	20.2±1
		0° direct beam horizontal 3dB beam width(°)	≤30	≤30	≤30
		0° direct beam sidelobe suppression(dB)	≤-15	≤-15	≤-15
		0° direct beam cross polar ratio(axial)(dB)	≥17	≥17	≥17
		0° direct beam front to back ratio(dB)	≥25	≥25	≥25
		±30° direct beam gain(dBi)	≥18	≥18	≥18



危险 Dangerous:

高空作业时，操作人员一定要系好安全带，戴好安全帽。
When working high above the ground, the operator must wear safety belts and helmet.

请勿靠近和触碰设备的端子。请穿好长袖衬衫和橡胶手套的防护服。
Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

请勿在雨、雪、大风天气或者所在区域有闪电或者雷声时安装。请勿在雷声区域安装。
Do not install on a wet or windy day or when lightning or thunder is in the area. Do not use metal ladder.

请勿安装在电源线附近。电源线、电话线和拉线外露情况，任何有铁屑等物落入都会造成危险。
Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.

Guangdong HOSENC Communication Technology Co., Ltd®

Address: No. 100, South Sanshui Avenue, Baini Town, Sanshui District, Foshan City, Guangdong Province

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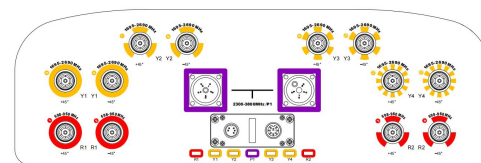


ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)	R1/R2 (698-960)			Y1/Y2/Y3/Y4 (1695-2690)			
	698-824	791-894	880-960	1695-1990	1920-2180	2300-2400	2490-2690
Polarization	±45°						
Gain at mid tilts (dBi)	14.0	14.3	14.6	15.9	16.1	16.3	16.6
Gain over all tilts (dBi)	13.9±0.6	14.2±0.6	14.5±0.6	15.8±0.6	16.0±0.6	16.2±0.6	16.5±0.6
Horizontal 3dB beam width(°)	68±6	65±6	63±6	66±6	65±6	63±6	60±6
Vertical 3dB beam width(°)	11±2	10±1.5	9±1	6.8±1	6.5±1	6.3±1	6.0±1
Front to back ratio(dB)	≥22	≥23	≥25	≥24	≥24	≥25	≥25
Cross polar ratio(0°)(dB)	≥15	≥16	≥17	≥15	≥16	≥17	≥18
Upper side lobe suppression (dB)	≥15	≥16	≥15	≥15	≥16	≥16	≥15
Electrical Downtilt (°)	2-12						
Electrical Downtilt accuracy (°)	±1						
Ports VSWR	≤1.5						
Isolation: intra-system (dB)	≥25						
Isolation: inter-system (dB)	≥25						
Intermodulation IM3 (2×43dBm)	≤-153dBc						
Impedance (Ω)	50						
Max Input Power (W)	1500						

MECHANICAL SPECIFICATIONS

Connector(s)	2×(MQ4+MQ5)Connector-Male +12×4.3-10 Female
Connector position	Bottom
Antenna Dimensions (mm)	2190×500×158
Packing Dimensions (mm)	2455×575×235
Mechanical Downtilt kits (°)	0-12
Radome Color	light gray
Radome Material	Fiberglass
Antenna weight (kg)	≤43
Packing weight (kg)	≤53
Wind loading @ Velocity, frontal	2142 N @ 150km/h
Wind loading @ Velocity, lateral	293 N @ 150km/h
Wind loading @ Velocity, rear	2320 N @ 150km/h
Wind Speed,maximun	200 km/h
Operating temperature (°C)	-40~+60
Mounting Pipe Diameter (mm)	Φ50~Φ115



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Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrify you.

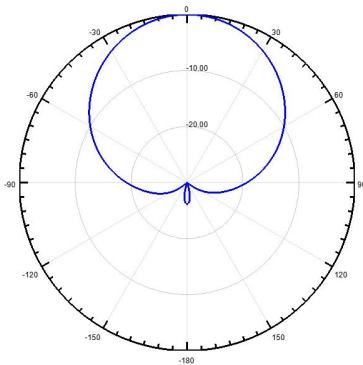
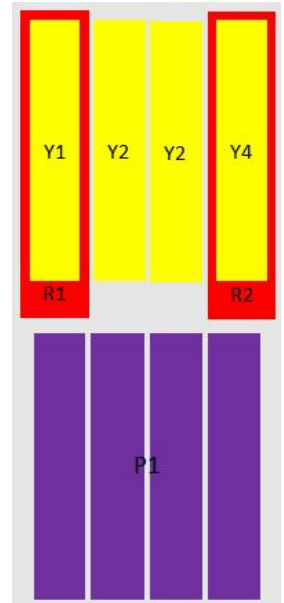
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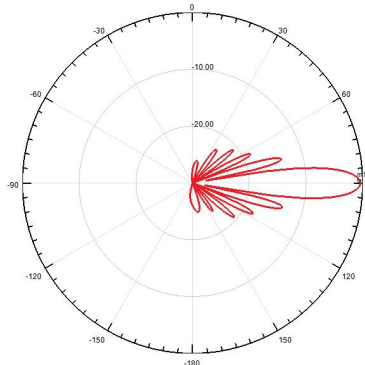


Integrated RET Properties

RET type	Replaceable Integrated RET
RET protocol	AISG 2.0/3GPP
Power supply(V)	10-30 DC
Power consumption(W)	≤0.6(Idle,12V),≤6(in Motion,12V)
Adjustment time (Full Range)	≤4Mins
Adjustment cycles	> 50,000
Temperature range(°C)	-40~65
Lightning protection	3KA(8/20μs) @ Pin5& Pin3; 5KA(8/20μs) @ Pin1/ Pin6& Pin7
Connectors	2 x 8 Pin circle connector according To IEC 60130-9 And AISG. Daisy chain in: Male, Daisychain out : Female Pin1:12V; Pin3:RS485B; Pin5:RS485A; Pin6:10-30V; Pin7:GND; Pin2 & Pin4 & Pin8: N/C



H Pattern



E Pattern

Ant Array	RET Unique ID
R1	HXT401A0N25K00001R1
R2	HXT401A0N25K00001R2
Y1	HXT401A0N25K00001Y1
Y2	HXT401A0N25K00001Y2
Y3	HXT401A0N25K00001Y3
Y4	HXT401A0N25K00001Y4
P1	HXT401A0N25K00001P1

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