

# Hybrid antenna FDD+TDD

Model: HX-T201B



## ELECTRICAL SPECIFICATIONS

General Parameters	Frequency Range (MHz)		Y5(2490-2690)
			2490-2690
	Polarization		$\pm 45^\circ$
	Electrical Downtilt ( $^\circ$ )		2-12
Calibration and Electrical Parameters	Electrical Downtilt accuracy ( $^\circ$ )		$\pm 1$
	Coupling factor between calibration port and each antenna port(dB)		$-26 \pm 2$
	Max.amplitude tolerance from calibration port to input ports(dB)		$\leq 1.0$
	Max.phase tolerance from calibration port to input ports( $^\circ$ )		$\leq 8$
	Ports VSWR		$\leq 1.5$
	Impedance ( $\Omega$ )		50
	Max Input Power (W)		1500
	Co-polarization isolation between ports(dB)		$\geq 25$
Radiation Parameters	Single Column Beam	Horizontal 3dB beam width( $^\circ$ )	65
		Gain (dBi)	$16 \pm 1$
		Vertical 3dB beam width( $^\circ$ )	$5 \pm 1$
		Cross polar ratio( $0^\circ$ )(dB)	$\geq 15$
		Cross polar ratio( $\pm 60^\circ$ )(dB)	$\geq 8$
		Front to back ratio(dB)	$\geq 25$
	Broadcast beam	Upper side lobe suppression (dB)	$\leq -15$
		Gain (dBi)	$16 \pm 1$
		SPR( $\pm 32.5^\circ$ )(%)	$70 \pm 15$
		SPR( $\pm 60^\circ$ )(%)	$\geq 85$
		Vertical 3dB beam width( $^\circ$ )	$5 \pm 1$
		Front to back ratio(dB)	$\geq 25$
	Service beam	Upper side lobe suppression (dB)	$\leq -15$
		$0^\circ$ direct beam gain(dBi)	$20 \pm 1$
		$0^\circ$ direct beam horizontal 3dB beam width( $^\circ$ )	$\leq 30$
		$0^\circ$ direct beam sidelobe suppression(dB)	$\leq -15$
		$0^\circ$ direct beam cross polar ratio(axial)(dB)	$\geq 17$
		$0^\circ$ direct beam front to back ratio(dB)	$\geq 25$
	$\pm 30^\circ$ direct beam gain(dBi)		$18 \pm 1$



**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.

请穿戴好鞋和橡胶手套。请穿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作业。请勿在雷声区域作业。  
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、电话线和拉线外露时, 任何导线都可能导致人身触电。  
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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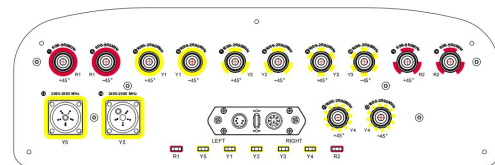


## ELECTRICAL SPECIFICATIONS

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)	13.9	14.2	14.4	15.6	15.9	16.1	16.3
Gain over all tilts (dBi)	13.8±0.6	14.1±0.6	14.3±0.6	15.5±0.6	15.8±0.6	16.0±0.6	16.2±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	7±1	6.8±1	6.5±1	6.3±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)	2435×595×250
Mechanical Downtilt kits (°)	0-12
Radome Color	light gray
Radome Material	Fiberglass
Antenna weight (kg)	≤42
Packing weight (kg)	≤56
Wind Loading @ Velocity, frontal	1946N@150 km/h
Wind Loading @ Velocity, lateral	274N@150 km/h
Wind Loading @ Velocity, rear	2250N@150 km/h
Wind Speed, maximum	200 km/h
Operating temperature (°C)	-40~+60
Mounting Pipe Diameter (mm)	Φ50~Φ115



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- 请穿鞋套和橡胶底的鞋子。请穿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。请勿在雷区安装。请勿使用金属梯子。  
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、电话线和拉线外皮相似，但所有导线都不能入眼。  
Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.

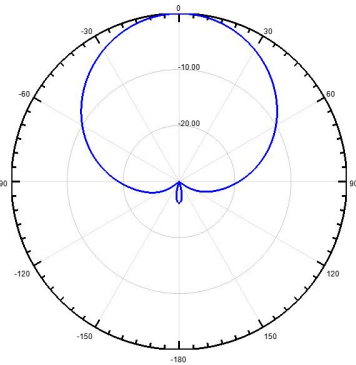
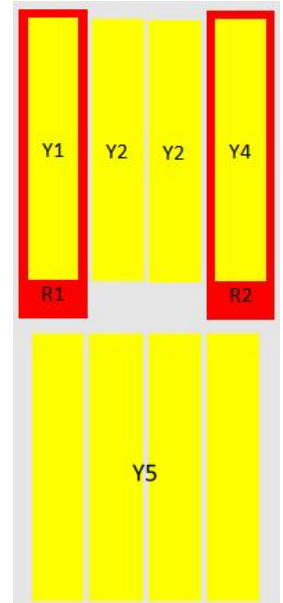
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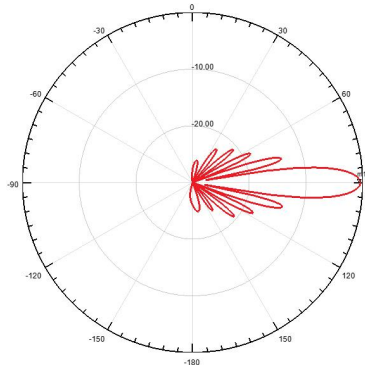


## Integrated RET Properties

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

[http://www.hosenc.com/page109?product\\_id=71](http://www.hosenc.com/page109?product_id=71)

Ant Array	RET Unique ID
R1	HXT201B0NYYX XXXXXR1
R2	HXT201B0NYYX XXXXXR2
Y1	HXT201B0NYYX XXXXXY1
Y2	HXT201B0NYYX XXXXXY2
Y3	HXT201B0NYYX XXXXXY3
Y4	HXT201B0NYYX XXXXXY4
Y5	HXT201B0NYYX XXXXXY5



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