

Hybrid antenna FDD+TDD

Model: EHS1T401A



EAHISON

ELECTRICAL SPECIFICATIONS

General Parameters	Frequency Range (MHz)		P1/P2/P3/P4
			2300-3800
	Polarization		$\pm 45^\circ$
	Electrical Downtilt (°)		2-12
Calibration and Electrical Parameters	Electrical Downtilt accuracy (°)		± 1
	Coupling factor between calibration port and each antenna port(dB)		-26 ± 2
	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
Radiation Parameters	Cross-polarization isolation between ports(dB)		≥ 25
	Single Column Beam	Horizontal 3dB beam width(°)	65
		Gain (dBi)	≥ 16
		Vertical 3dB beam width(°)	5 ± 1
		Cross polar ratio(0°)(dB)	≥ 15
		Cross polar ratio($\pm 60^\circ$)(dB)	≥ 8
		Front to back ratio(dB)	≥ 25
		Upper side lobe suppression (dB)	≤ -15
	Broadcast beam	Gain (dBi)	≥ 16
		SPR($\pm 32.5^\circ$)(%)	70 ± 15
		SPR($\pm 60^\circ$)(%)	≥ 85
		Vertical 3dB beam width(°)	5 ± 1
		Front to back ratio(dB)	≥ 25
		Upper side lobe suppression (dB)	≤ -15
	Service beam	0° direct beam gain(dBi)	≥ 20
		0° direct beam horizontal 3dB beam width(°)	≤ 30
		0° direct beam sidelobe suppression(dB)	≤ -15
		0° direct beam cross polar ratio(axial)(dB)	≥ 17
		0° direct beam front to back ratio(dB)	≥ 25
		$\pm 30^\circ$ direct beam gain(dBi)	≥ 18

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ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)	R1/R2	Y1/Y2/Y3/Y4
	690-960	1710-2690
Polarization	$\pm 45^{\circ}$	
Gain over all tilts (dBi)	≥ 14.5	≥ 16.5
Horizontal 3dB beam width($^{\circ}$)	65	65
Vertical 3dB beam width($^{\circ}$)	10 ± 2	7 ± 2
Front to back ratio(dB)	≥ 25	≥ 25
Cross polar ratio(0°)(dB)	≥ 15	≥ 15
Upper side lobe suppression (dB)	≥ 15	≥ 15
Electrical Downtilt ($^{\circ}$)	2-12	
Electrical Downtilt accuracy ($^{\circ}$)	± 1	
Ports VSWR	≤ 1.5	
Isolation: intra-system (dB)	≥ 25	
Isolation: inter-system (dB)	≥ 25	
Intermodulation IM3 ($2 \times 43\text{dBm}$)	$\leq -153\text{dBc}$	
Impedance (Ω)	50	
Max Input Power (W)	1500	

MECHANICAL SPECIFICATIONS

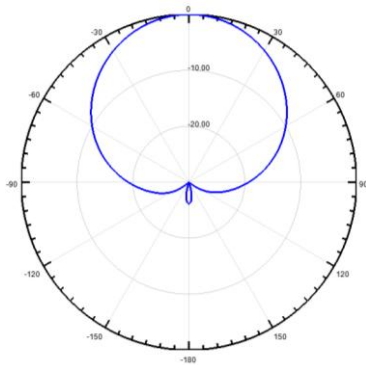
Connector(s)	$2 \times (\text{MQ4} + \text{MQ5})$ Connector-Male $+12 \times 4.3-10$ Female
Connector position	Bottom
Antenna Dimensions (mm)	$2190 \times 500 \times 158$
Packing Dimensions (mm)	/
Mechanical Downtilt kits ($^{\circ}$)	0-12
Radome Color	light gray
Radome Material	Fiberglass
Antenna weight (kg)	≤ 43
Packing weight (kg)	/
Wind load (N, at 150km/h) Frontal/Lateral/Rearside	/
Operating temperature ($^{\circ}\text{C}$)	$-40 \sim +60$
Maximum Wind Speed(km/h)	200
Mounting Pipe Diameter (mm)	$\Phi 50 \sim \Phi 115$
RET type	Replaceable Integrated RET

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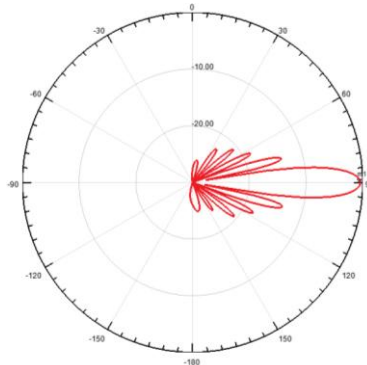
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H Pattern



E Pattern

