

ECOSD1R2Y2PLB



Features & Applications

- 30 Ports Tri-Sector Antenna with Internal RET
- (2 x 698-960 MHz, 4 x 1452-2690 MHz, 4 x 3400-3800 MHz) x 3 sector
- H 75 ° / H 65 ° / H 64 °
- Gain at mid Tilt : 16 dBi / 16.8 dBi / 17.3 dBi
- Electrical Down tilt : 2° -12°

ELECTRICAL SPECIFICATIONS | None Beamforming

Port Information	-	R1-R3		
Frequency Range	(MHz)	698-862	790-862	880-960
Gain (MAX)	(dBi)	15.6	16	15.7
Gain (AVG)	(dBi)	15.2±0.4	15.6±0.3	14.9±0.7

Horizontal Pattern

Azimuth Beam width	(°)	75.6±6	74.2±3.9	77±5.3
Front-to-Back Ratio	(dB)	20.2	23	23
Cross Polar Discrimination at Boresight	(dB)	18.2	17.4	15.5

Vertical Pattern

Elevation Beam width	(°)	11±0.9	10.2±0.5	9.2±0.6
Electrical Downtilt continuously Adjustable	(°)	2-12		
First Upper Side Lobe Suppression	(dB)	>18.8	>19	>18.7

ELECTRICAL SPECIFICATIONS

Port Information	-	Y1-Y6				
Frequency Range	(MHz)	1452-1492	1710-1990	1920-2170	2300-2400	2500-2690
Gain (MAX)	(dBi)	14.5	15.8	16.6	16.8	16.3
Gain (AVG)	(dBi)	13.5±0.7	15.1±0.5	15.5±0.9	15.7±1.1	15.1±1

Horizontal Pattern

Azimuth Beam width	(°)	74.1	66.1	61.7	58.5	68.8
Front-to-Back Ratio	(dB)	20	22	22	21	20
Cross Polar Discrimination at Boresight	(dB)	20	20	20	15	15

Vertical Pattern

Elevation Beam width	(°)	8.8±0.6	8.1±0.6	7.5±0.6	6.6±0.7	6.1±0.6
First Upper Side Lobe Suppression	(dB)	18	16	16	18	16
Electrical Down tilt continuously adjustable	(°)	2-12				

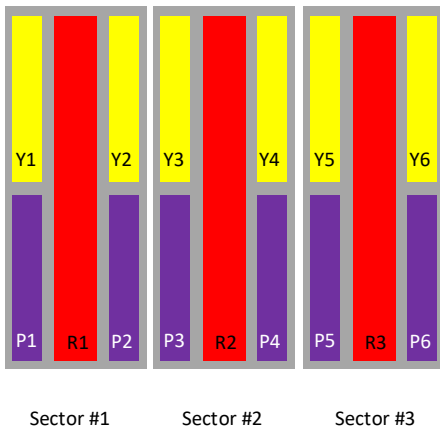
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ELECTRICAL SPECIFICATION			
Port information	-	P1-P6	
Frequency Range	(MHz)	3400-3600	3600-3800
Gain (MAX)	(dBi)	17.3	17.3
Gain (AVG)	(dBi)	16.1±0.9	15.9±0.9
Horizontal Pattern			
Azimuth Beam width	(°)	64.5±1.1	64.9±1.1
Front-to-Back Ratio	(dB)	20.1	18.2
Cross Polar Discrimination at Boresight	(dB)	21.3	21.5
Vertical Pattern			
Elevation Beam width	(°)	6.4±0.4	6±0.3
Electrical Downtilt continuously Adjustable	(°)	2-12	
First Upper Side Lobe Suppression	(dB)	15.3	12.5
GENERAL SPECIFICATIONS			
Isolation	(dB)	25	
Interband Isolation	(dB)	30	
VSWR	-	1.5 : 1	
Polarization	(°)	±45	
Intermodulation IM3	(dBc)	-153(2 x 43 dBm carrier)	
Impedance	(Ω)	50	
Max. Effective Power per Port	(Watts)	150	

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MECHANICAL SPECIFICATIONS		
Connector Type & Quantity	-	30 x 4.3-10 DIN Female
Connector Position	-	Bottom
Antenna Dimension (D x H)	(inch / mm)	∅14.5 x 78.7 / ∅370 x 2000
Weight (without Mounting Kit)	(lb / kg)	101.4 / 46
Wind Load (@100 mph)	(N)	Front 970, Side 970, Rear 970
Max.Wind Speed	(mph)	150
Radome (Color)	-	ASA (Cool Gray)

Array Information



Part#	Array	Frequency(MHz)	AISG RET UID	Connectors
Sector#1 RET#1	R1	698-960	ES-RET#1R1xxxxxxxxx1	1-2
	Y1-Y2	1452-2690	ES-RET#1YYxxxxxxxxx3	3-6
	P1-P2	3400-3800	ES-RET#1PPxxxxxxxxx2	7-10
Sector#2 RET#2	R2	698-960	ES-RET#2R2xxxxxxxxx1	11-12
	Y3-Y4	1452-2690	ES-RET#2YYxxxxxxxxx3	13-16
	P3-P4	3400-3800	ES-RET#2PPxxxxxxxxx2	17-20
Sector#3 RET#3	R3	698-960	ES-RET#3R3xxxxxxxxx1	21-22
	Y5-Y6	1452-2690	ES-RET#3YYxxxxxxxxx3	23-26
	P5-P6	3400-3800	ES-RET#3PPxxxxxxxxx2	27-30



Internal RET (Remote Electrical Tilting device)

Features & Applications

- Remote Electrical Tilting device for Multi/Single antennas with electrical down-tilt
- Firmware updatable & Flexibly change mode(Multi or Single)
- Compliant to AISG 2.0 / 3GPP
- Compact size
- 3 channel antenna control supports

Technical Specification	
Product	RETP-1T3
Protocols	Compliant to AISG 2.0 / 3GPP
Input voltage range	+10 ~ +30VDC (pin 6)
Power consumption	< 2W (stand by); < 13W (motor activated)
Connectors (AISG)	2 x 8 pin connector acc. to IEC 60130-9 Acc. to AISG Daisy chain in : male; Daisy chain out : female
Hardware interface (AISG)	RS485A/B (pin5/pin3); Power supply (pin6); DC return (pin7) Acc. to AISG
Adjustment time (full range)	40 sec (typically, depending on antenna)
Temperature range	-40 ~ +70°C
Protection class	IP55(@plugged in antenna)
Adjustment Cycles	10000 times
Housing material	Body: Al (WHITE CROMATE) Cover: Al (WHITE CROMATE)
Weight	<640g

