

6874398NG

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 997 mm

- Tri band antenna, Dual polarisation, 6 connectors
- Independent, continuously adjustable tilt on each band 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with three integrated RCUs

ACCESS PORT DESCRIPTION (CONNECTORS)

The antenna has 6 colour-coded connectors located at the bottom face.

Frequency Designation	R1	Y1	Y2
Frequency Range	698-960 MHz	1710-2690 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol	Xpol
Horizontal Beamwidth	65°	65°	65°
Electrical Downtilt Range	2-12°	2-12°	2-12°
Connector Type	(2x) 4.3-10 Female	(2x) 4.3-10 Female	(2x) 4.3-10 Female

ELECTRICAL CHARACTERISTICS

		R1		
Frequency Bands		698-960 MHz		
		698-806 MHz	790-894 MHz	880-960 MHz
Gain	at Mid Tilt	12.5 dBi	13.0 dBi	13.3 dBi
	Over All Tilts	12.5 ± 0.5 dBi	13.0 ± 0.5 dBi	13.3 ± 0.5 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Return Loss		> 14 dB		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		70° ± 5.0°	68° ± 5.0°	65° ± 5.0°
Vertical Beamwidth (-3 dB)		22.2° ± 3.0°	19.8° ± 2.0°	18.6° ± 2.0°
Electrical Downtilt Range		2-12°		
Cross-Polar Isolation		> 25 dB		
Interband Isolation		> 25 dB		
Port-to-Port Isolation		> 25 dB		
First Upper Sidelobe Suppression		> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 23 dB	> 24 dB	> 24 dB
Cross Polar Ratio	Main Direction (0°)	> 17 dB	> 17 dB	> 17 dB
	Sector Edges (±60°)	> 8 dB	> 8 dB	> 8 dB
Lightening Protection		DC Ground		
Maximum Power (Per Port)		250 W (at 50° C ambient temperature)		
Intermodulation 3rd (2x43 dBm Carrier)		< -150 dBc		

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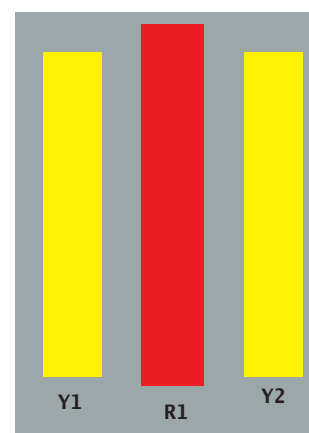
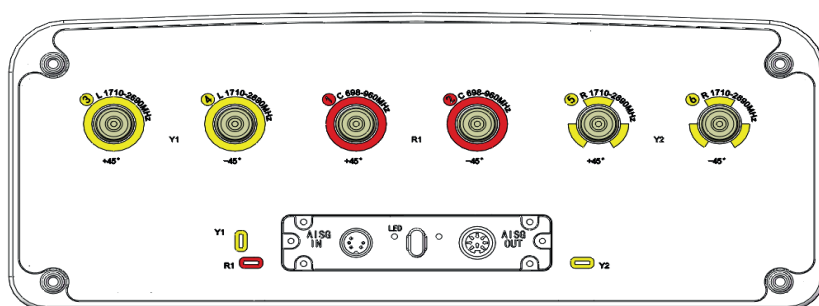
ELECTRICAL CHARACTERISTICS		Y1, Y2				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	at Mid Tilt	15.2 dBi	15.5 dBi	15.7 dBi	16.1 dBi	16.2 dBi
	Over All Tilts	15.1 ± 0.7 dBi	15.4 ± 0.7 dBi	15.6 ± 0.7 dBi	16.0 ± 0.7 dBi	16.1 ± 0.7 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Return Loss		> 14 dB				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		69° ± 6.0°	67° ± 6.0°	66° ± 5.5°	66° ± 5.5°	64° ± 5.0°
Vertical Beamwidth (-3 dB)		9.8° ± 1.0°	9.1° ± 0.9°	8.6° ± 0.9°	7.6° ± 0.8°	6.9° ± 0.7°
Electrical Downtilt Range		2-12°				
Cross-Polar Isolation		> 25 dB				
Interband Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB				
First Upper Sidelobe Suppression		> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 23 dB	> 24 dB	> 24 dB	> 25 dB	> 25 dB
Cross Polar Ratio	Main Direction (0°)	> 16 dB	> 16 dB	> 16 dB	> 17 dB	> 17 dB
	Sector Edges (±60°)	> 8 dB	> 7 dB	> 8 dB	> 8 dB	> 5 dB
Lightening Protection		DC Ground				
Maximum Power (Per Port)		200 W (at 50° C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -150 dBc				

Several patents pending regarding this product. Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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INTEGRATED RET PROPERTIES	
Protocols	Compliant With AISGV2.0 And 3GPP
Supply Voltage, VDC	10-30DC
Adjustment Time(Full Range)	≤ 90 s (typical, depending on Antenna type)
Power Consumption	< 2W (standby); < 10W (motor activated)
Angular Accuracy for shaft turn	Angular Accuracy ≤ 0.5 deg
Hardware Interface	RS485 And Power
Safety Standard	Compliant to EN 60950/UL 60950/ RoHs (Restriction of Hazardous Substances), CE
Remote control	Can management from OMC, BTS/NodeB
Lifetime/Adjustment Cycles	> 20000
Torque Max.	≥ 160mN.m
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8kA
Daisy chaining method	Ready for daisy-chaining
Housing Material	Aluminum
Housing Color	Silvery white
Mounting	Directly onto Antenna
Connectors	2 x 8 Pin Circle Connector According To IEC 60130-9 And AISG. Daisy Chain In : Male, Daisy Chain Out : Female Pin3:RS485+; Pin5:RS485-; Pin6:10~30V; Pin7:GND Female connector: 8 PINs ,Male connector: 5 PINs.
Operating Temperature range	-40°C to +70°C



ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	■ R1	698-960	1-2	4.3-10 Female
	■ Y1	1710-2690	3-4	4.3-10 Female
	■ Y2	1710-2690	5-6	4.3-10 Female

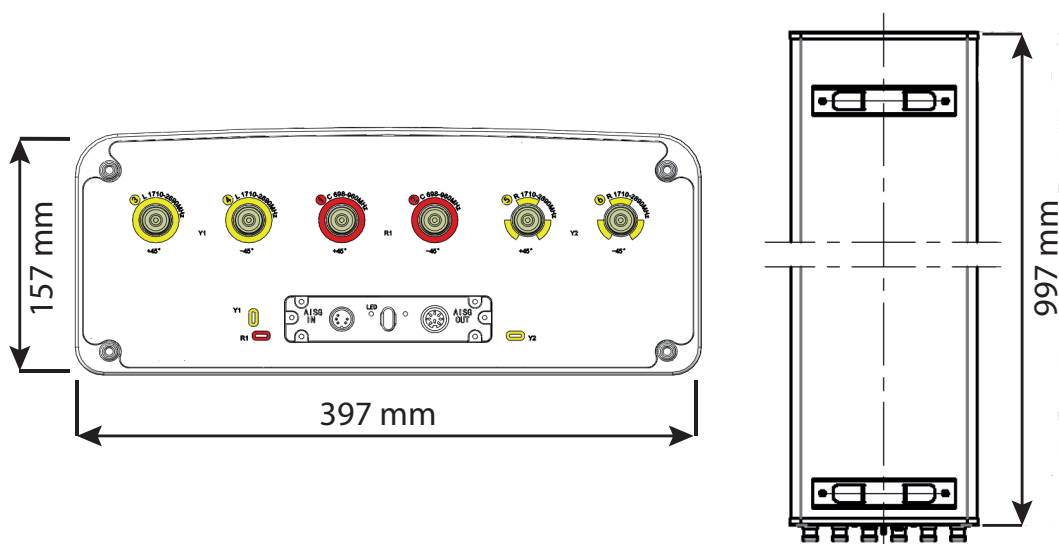
Diagram shown at right depicts the view from the front of the antenna. The illustration is not shown to scale.

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MECHANICAL CHARACTERISTICS		PACKAGING	
Dimensions (Height x Width x Depth)	997 x 397 x 157 mm (39.2 x 15.6 x 6.1 in)	Carton Box 1.197 x 0.492 x 0.277 m (47.1 x 19.3 x 8.9 in)	
Weight (excluding mounting accessory)	15.5 kg (34.1 lbs)		
Weight with mounting accessory	20 kg (44.0 lbs)		
Radome Material	Fiberglass		
Operating Temperature	-40°C to +60°C		
Maximum Wind Speed	200 km/h		
Wind Loads (at 150 km/h)	Frontal	365 N (82.0 lbf)	
	Rear	410 N (92.1 lbf)	
	Lateral	180 N (40.4 lbf)	
MOUNTING KIT OPTIONS		POLE DIAMETER	
All mounting bracket kits are ordered separately unless otherwise indicated.		MECHANICAL TILT	
Mounting Bracket Kit (Included)		Ø50-Ø115 mm	0-16°



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