

6861308NG

2-Band, 4-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2497 mm

- Dual band antenna, dual polarisation, 4 connectors
- Independent, continuously adjustable tilt on each band 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with two integrated RCUs

ACCESS PORT DESCRIPTION (CONNECTORS)

The antenna has 4 colour-coded connectors located at the bottom face.

Frequency Designation	R1	Y1
Frequency Range	690-960 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol
Horizontal Beamwidth	65°	65°
Electrical Downtilt Range	2-12°	2-12°
Connector Type	(2x) 4.3-10 Female	(2x) 4.3-10 Female

ELECTRICAL CHARACTERISTICS

		R1		
Frequency Bands		690-960 MHz		
		690-806 MHz	790-894 MHz	880-960 MHz
Gain	at Mid Tilt	16.0 dBi	16.4 dBi	16.9 dBi
	Over All Tilts	15.8 ± 0.5 dBi	16.2 ± 0.5 dBi	16.7 ± 0.5 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		70° ± 4.5°	66° ± 4.5°	64° ± 4.5°
Vertical Beamwidth (-3 dB)		8.8° ± 0.9°	8.0° ± 0.6°	7.2° ± 0.7°
Electrical Downtilt Range		2-12°		
Cross-Polar Isolation		> 28 dB		
Interband Isolation		> 28 dB		
Port-to-Port Isolation		> 28 dB		
Upper Sidelobe Suppresson	Typical	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 23 dB	> 24 dB	> 25 dB
Cross Polar Ratio	Main Direction (0°)	> 17 dB	> 18 dB	> 17 dB
	Sector Edges (±60°)	> 7.0 dB	> 8.0 dB	> 7.0 dB
Maximum Power (Per Port)		350 W (at 50° C ambient temperature)		
Intermodulation 3rd Order for 2 x 43 dBm Carrier		< -153 dBc		



A GLOBAL INITIATIVE

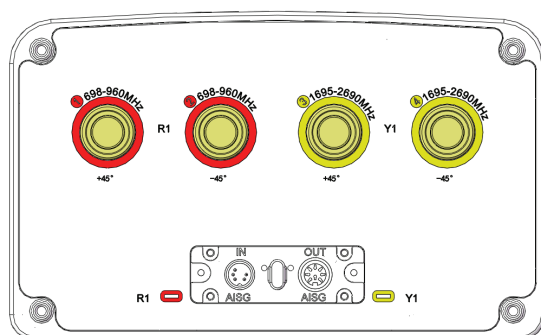


Several patents pending regarding this product. Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our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

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ELECTRICAL CHARACTERISTICS		Y1				
		1710-2690 MHz				
Frequency Bands		1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain	At Mid Tilt	16.8 dBi	17.2 dBi	17.4 dBi	17.6 dBi	17.4 dBi
	Over All Tilts	16.6 ± 0.6 dBi	17.0 ± 0.6 dBi	17.2 ± 0.6 dBi	17.4 ± 0.5 dBi	17.2 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		67° ± 6.5°	62° ± 6.5°	60° ± 6.5°	60° ± 6.0°	60° ± 6.5°
Vertical Beamwidth (-3 dB)		7.2° ± 0.7°	6.7° ± 0.6°	6.2° ± 0.6°	5.7° ± 0.5°	5.2° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 28 dB				
Interband Isolation		> 28 dB				
Port-to-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 24 dB	> 24 dB	> 25 dB	> 26 dB	> 26 dB
Cross Polar Discrimination	Main Direction	> 15 dB	> 16 dB	> 16 dB	> 18 dB	> 18 dB
	Sector Edges	> 8 dB	> 8 dB	> 6 dB	> 6 dB	> 4.5 dB
Maximum Power (Per Port)		250 W (at 50°C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc				
Grounding		DC Ground				



ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	■ R1	690-960	1-2	4.3-10 Female
■ Y1	1710-2690	3-4	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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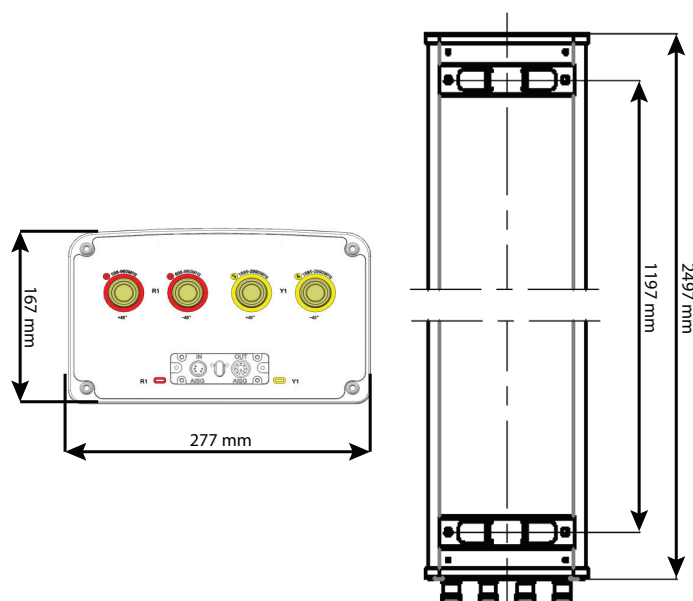
INTEGRATED RET PROPERTIES	
Power Supply	10-30VDC Compliant with 3GPP/AISGv2.0
Power Consumption	≤ 2W (Idle), ≤ 10W (In Motion)
Hardware Interface	RS485 and Power
Logical Interface	HEX Coded Commands Based on HDLC Protocol
Protocol Supported	AISG v2.0
Adjustment Time (Full Range)	< 4Min
Adjustment Cycles	> 10,000
Torque Max	≥ 160 mN.m
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA
Connectors	(2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG Daisy Chain In: Male; Daisy Chain Out: Female Pin 3: RS485+; Pin 5: RS485-; Pin 6: 10~30V; Pin 7: GND

MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)	2497 x 277 x 167 mm (98.3 x 10.9 x 6.5 in)	
Weight (excluding mounting accessory)	21.5 kg (47.4 lbs)	
Radome Material, Colour	UVPC, Light Grey	
Maximum Wind Speed	200 km/h (124.2 mph)	
Wind Load at 150 km/h (93.2 mph)	Frontal	640 N (143.8 lbf)
	Rear	715 N (160.7 lbf)
	Lateral	505 N (113.5 lbf)

PACKAGING

Carton Box
2.847 x 0.362 x 0.267 m
(112.0 x 14.2 x 10.5 in)

MOUNTING KIT OPTIONS	POLE DIAMETER	MECHANICAL.TILT
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting Bracket Kit (Included)	Ø50-Ø125 mm	0 - 10



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