5961338G

5961338NG

4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 2497 mm

- Quad band antenna, dual polarisation, 8 connectors
- Independent tilt on each band 2-12° / 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISGv2.0
- 4 Integrated RET Units (field replaceable)

ODERING OPTIONS	MODEL NUMBER
Antenna with 4.3-10 Connectors	5961338NG
Antenna with 7/16-DIN Connectors	5961338G

ACCESS PORT DESCRIPTION (CONNECTORS)				
This antenna has 8 colour-coded connectors located at the bottom face.				
Frequency Designation	R1	R2	Y1	Y2
Frequency Range	690-960 MHz	690-960 MHz	1690-2690 MHz	1690-2690 MHz
Polarisation	Xpol	Xpol	Xpol	Xpol
Horizontal Beamwidth	65°	65°	65°	65°
Electrical Downtilt Range	2-12°	2-12°	2-12°	2-12°
Connector Type	(2x) 4.3-10 Female or 7/16-DIN Female	(2x) 4.3-10 Female or 7/16-DIN Female	(2x) 4.3-10 Female or 7/16-DIN Female	(2x) 4.3-10 Female or 7/16-DIN Female

ELECTRICAL CHARACTERISTICS		R1		
Frequency Bands		690-960 MHz		
		690-806	790-894	880-960
Gain	At Mid Tilt	15.5 dBi	16.1 dBi	16.6 dBi
	Over All Tilts	15.5 ± 0.5 dBi	16.0 ± 0.5 dBi	16.6 ± 0.4 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		68° ± 4.4°	65° ± 3.6°	60° ± 4.6°
Vertical Beamwidth (-3 dB)		9.4° ± 0.5°	8.5° ± 0.6°	7.5° ± 0.6°
Electrical Downtilt Range		2-12°		
Cross Polar Isolation		> 26 dB		
Port-to-Port Isolation		> 28 dB		
Interband Isolation		> 26 dB		
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 17dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 22 dB	> 24 dB	> 24 dB
Front-to-Back Ratio (@ 180°)		> 25 dB	> 25 dB	> 25 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 18 dB	> 18 dB
	Sector Edges	> 10.0 dB	> 7.5 dB	> 6.5 dB
Maximum Power (Per Port)		300 W (at 50°C ambient temperature)		
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc		
Grounding		DC Ground		

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4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 2497 mm

ELECTRICAL CHARACTERISTICS		R2		
Frequency Bands		690-960 MHz		
		690-806	790-894	880-960
Gain	At Mid Tilt	15.5 dBi	16.1 dBi	16.6 dBi
	Over All Tilts	15.5 ± 0.5 dBi	16.0 ± 0.5 dBi	16.6 ± 0.4 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		68° ± 4.4°	65° ± 3.6°	60° ± 4.6°
Vertical Beamwidth (-3 dB)		9.4° ± 0.5°	8.5° ± 0.6°	7.5° ± 0.6°
Electrical Downtilt Range		2-12°		
Cross Polar Isolation		> 26 dB		
Port-to-Port Isolation		> 28 dB		
Interband Isolation		> 26 dB		
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 17 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 22 dB	> 24 dB	> 24 dB
Front-to-Back Ratio (@ 180°)		> 25 dB	> 25 dB	> 25 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 18 dB	> 18 dB
	Sector Edges	> 10.0 dB	> 7.5 dB	> 6.5 dB
Maximum Power (Per Port)		300 W (at 50°C ambient temperature)		
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc		
Grounding		DC Ground		

ELECTRICAL CHARACTERISTICS		Y1				
Frequency Bands		1690-2690 MHz				
		1690-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain	At Mid Tilt	17.4 dBi	17.7 dBi	17.9 dBi	17.9 dBi	18.1 dBi
	Over All Tilts	17.3 ± 0.6 dBi	17.7 ± 0.6 dBi	17.9 ± 0.6 dBi	17.9 ± 0.5 dBi	17.9 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		66° ± 4.8°	63° ± 4.6°	61° ± 4.5°	62° ± 4.2°	62° ± 4.6°
Vertical Beamwidth (-3 dB)		6.5° ± 0.5°	6.0° ± 0.5°	5.5° ± 0.5°	4.9° ± 0.5°	4.4° ± 0.5°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 26 dB				
Port-to-Port Isolation		>28 dB				
Interband Isolation		> 26 dB				
Upper Sidelobe Suppression	First Upper Lobe	> 17 dB	> 17 dB	> 17 dB	> 17 dB	> 17 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 24 dB	> 24 dB	> 24 dB	> 24 dB	> 25 dB
Front-to-Back Ratio (@ 180°)		> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Cross Polar Discrimination	Main Direction	> 22 dB	> 20 dB	> 19 dB	> 18 dB	> 17 dB
	Sector Edges	> 9.0 dB	> 9.0 dB	> 8.0 dB	> 8.0 dB	> 5.0 dB
Maximum Power (Per Port)		250 W (at 50°C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc				
Grounding		DC Ground				

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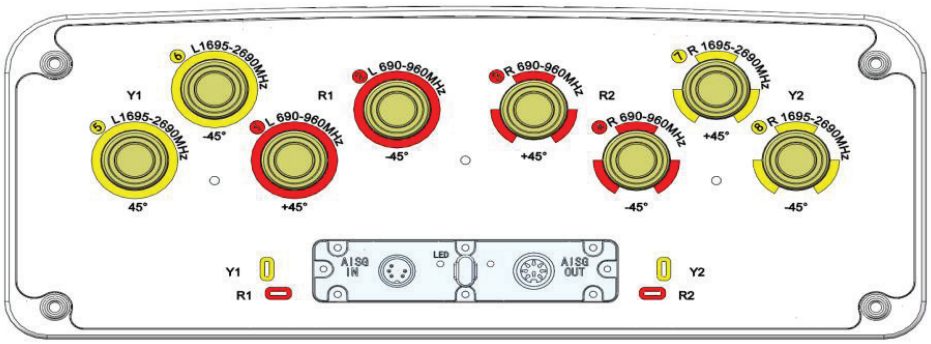
4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 2497 mm

ELECTRICAL CHARACTERISTICS		Y2				
Frequency Bands		1690-2690 MHz				
		1690-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain	At Mid Tilt	17.4 dBi	17.7 dBi	17.9 dBi	17.9 dBi	18.1 dBi
	Over All Tilts	17.3 ± 0.6 dBi	17.7 ± 0.6 dBi	17.9 ± 0.6 dBi	17.9 ± 0.5 dBi	17.9 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		66° ± 4.8°	63° ± 4.6°	61° ± 4.5°	62° ± 4.2°	62° ± 4.6°
Vertical Beamwidth (-3 dB)		6.5° ± 0.5°	6.0° ± 0.5°	5.5° ± 0.5°	4.9° ± 0.5°	4.4° ± 0.5°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 26 dB				
Port-to-Port Isolation		>28 dB				
Interband Isolation		> 26 dB				
Upper Sidelobe Suppression	First Upper Lobe	> 17 dB	> 17 dB	> 17 dB	> 17 dB	> 17 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 24 dB	> 24 dB	> 24 dB	> 24 dB	> 25 dB
Front-to-Back Ratio (@ 180°)		> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Cross Polar Discrimination	Main Direction	> 22 dB	> 20 dB	> 19 dB	> 18 dB	> 17 dB
	Sector Edges	> 9.0 dB	> 9.0 dB	> 8.0 dB	> 8.0 dB	> 5.0 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 or 7/16-DIN Female
	R2	690-960	3-4	4.3-10 Female or 7/16-DIN Female
	Y1	1690-2690	5-6	4.3-10 Female or 7/16-DIN Female
	Y2	1690-2690	7-8	4.3-10 Female or 7/16-DIN Female

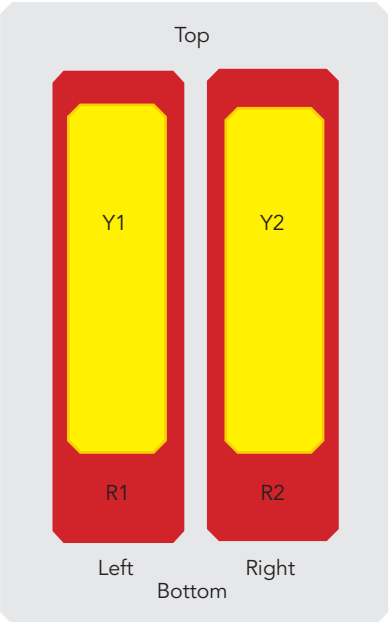


Diagram shown at right depicts the view from the front of the antenna. The illustration is not shown to scale.

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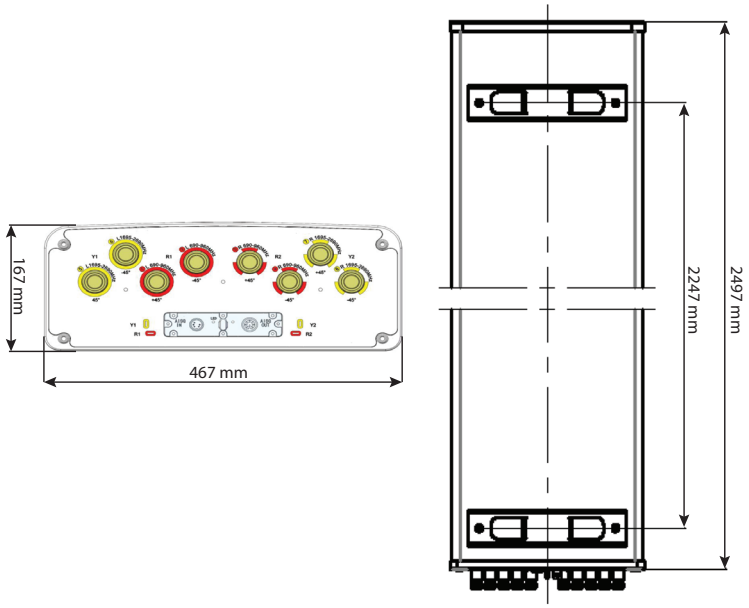
INTEGRATED RET PROPERTIES	
Protocol	Compliant with 3GPP/AISGv2.0
Power Supply	10-30VDC
Adjustment Time (Full Range)	≤ 90 sec (typical, depending on antenna type)
Power Consumption	< 1 W (Idle); < 10 W (In Motion)
Hardware Interface	RS485 and Power
Safety Standard	Compliant to EN 60950/UL 60950/ RoHS, CE
Adjustment Cycles	> 10,000
Torque Max	≥ 160 mN.m
Protection Class	IP65
Operating/Storage Temperature	-40° to +60°C (-40° to +140°F)
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 µs 10 Repetitions Min. @ 8 kA IEC 61312-1 B Protection against lightning electromagnetic impulse 10/350 µs,200@0.6kA
Connectors	(2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG.C-485 Daisy Chain In: Male; Daisy Chain Out: Female Pin 3: RS485B; Pin 5: RS485A; Pin 6: 10~30V; Pin 7: DC Return

MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)		2497 x 467 x 167 mm (98.3 x 18.4 x 6.6 in)
Weight (excluding mounting accessory)		38.5 kg (84.9 lbs)
Radome Material, Colour		Fiberglass
Radiator/Reflector Material		Aluminium
Connector Type		(8x) 4.3-10 Female or 7/16-DIN Female
Maximum Wind Speed		200 km/h (124.2 mph)
Wind Load at 150 km/h (93.2 mph)	Frontal	1080 N (370.9 lbf)
	Rear	1205 N (270.8 lbf)
	Lateral	475 N (106.7 lbf)

PACKAGING
Carton Box 2.697 x 0.562 x 0.287 m (106.2 x 22.1 x 11.3 in)

MOUNTING KIT OPTIONS	POLE DIAMETER	MECHANICAL TILT RANGE
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting Bracket Kit (Included)	Ø50-Ø125 mm (Ø2.0-Ø4.9 in)	0-16°



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