

5963388G

5963388NG

4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 1997 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)

ORDERING OPTIONS	MODEL NUMBER
Antenna with 4.3-10 Connectors	5963388NG
Antenna with 7/16-DIN Connectors	5963388G

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	14.8 dBi	15.5 dBi	15.8 dBi
	Over All Tilts	14.7 ± 0.5 dBi	15.5 ± 0.5 dBi	15.8 ± 0.5 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)		10.5° ± 0.9°	9.4° ± 0.8°	8.5° ± 0.7°
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	> 17 dB	> 17 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 22 dB	> 24 dB	> 24 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)		250 W (at 50°C ambient temperature)		
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc		
Grounding		DC Ground		



A GLOBAL INITIATIVE



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690-960 | 690-960 | 1690-2690 | 1690-2690 MHz

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4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 1997 mm

ELECTRICAL CHARACTERISTICS		R2		
Frequency Bands		690-960 MHz		
		690-806	790-894	880-960
Gain	At Mid Tilt	14.8 dBi	15.5 dBi	15.8 dBi
	Over All Tilts	14.7 ± 0.5 dBi	15.5 ± 0.5 dBi	15.8 ± 0.5 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)		10.5° ± 0.9°	9.4° ± 0.8°	8.5° ± 0.7°
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	> 17 dB	> 17 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 22 dB	> 24 dB	> 24 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)		250 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
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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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
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				

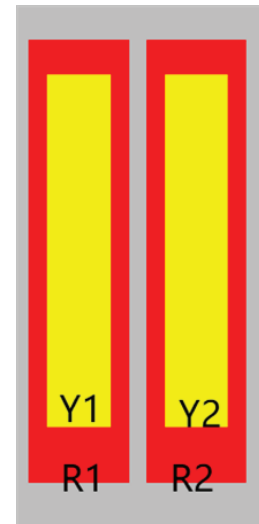
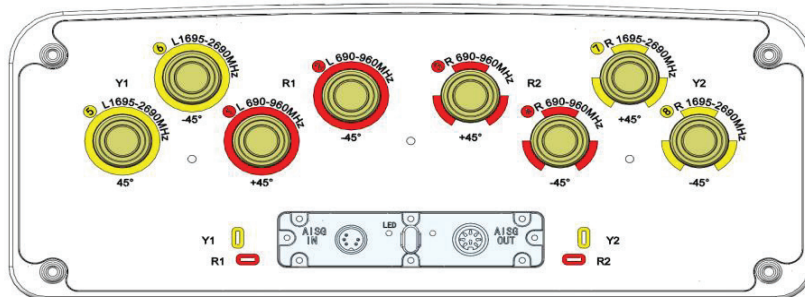
INTEGRATED RET PROPERTIES	
Power Supply	10-30VDC
Power Consumption	< 1W (Idle), < 10W (In Motion)
Hardware Interface	Pin3: RS485B; Pin5: RS485A; Pin6: 10-30V; Pin7: DC Return According to AISG/3GPP
Protocol Supported	Compliant with 3GPP/AISGv2.0
Adjustment Time (Full Range)	≤ 90 s (typical, depending on Antenna type)
Adjustment Cycles	> 10,000
Torque Max	≥ 160 mN.m
Safety Standard	Compliant to EN 60950/UL 60950/RoHS, CE
Protection Class	IP65
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA IEC61312-1 B Protection against lightning electromagnetic impulse 10/350 μs, 200 @ 0.6 kA
Connectors	(2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG.C-485 Daisy Chain In: Male; Daisy Chain Out: Female

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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.

MECHANICAL CHARACTERISTICS		PACKAGING	
Dimensions (Height x Width x Depth)	1997 x 467 x 167 mm (78.6 x 18.4 x 6.6 in)		
Weight (excluding mounting accessory)	32 kg (70.5 lbs)		
Radome Material, Colour	Fiberglass		
Maximum Wind Speed	200 km/h (124.2 mph)		
Wind Loads (at 150 km/h)	Frontal	860 N (193.3 lbf)	
	Rear	965 N (216.9 lbf)	
	Lateral	320 N (71.9 lbf)	
MOUNTING KIT OPTIONS		POLE DIAMETER	
All mounting bracket kits are ordered separately unless otherwise indicated.		MECHANICAL TILT	
Mounting Bracket Kit (Included)		Ø50-Ø125 mm	0-12°

PACKAGING

Carton Box
2.197 x 0.562 x 0.287 m
(86.5 x 22.1 x 11.3 in)

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