

## 5863308G

5863308NG

2-Band | 4-Port | XPOL | Panel Antenna | Variable Tilt | 1997 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

ORDERING OPTIONS	MODEL NUMBER
Antenna with 4.3-10 Connectors	5863308NG
Antenna with 7/16-DIN Connectors	5863308G

ACCESS PORT DESCRIPTION (CONNECTORS)		
This antenna has 4 colour-coded connectors located at the bottom face.		
Frequency Designation	R1	Y1
Frequency Range	698-960 MHz	1695-2690 MHz
Polarisation	Xpol	Xpol
Horizontal Beamwidth	65°	65°
Electrical Downtilt Range	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

ELECTRICAL CHARACTERISTICS		R1		
Frequency Bands		698-960 MHz		
		698-806	790-894	880-960
Gain	At Mid Tilt	15.2 dBi	15.7 dBi	16.2 dBi
	Over All Tilts	15.2 ± 0.5 dBi	15.6 ± 0.5 dBi	16.1 ± 0.5 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		68° ± 3.8°	65° ± 3.6°	64° ± 3.8°
Vertical Beamwidth (-3 dB)		10.8° ± 1.2°	9.6° ± 0.8°	8.8° ± 0.8°
Electrical Downtilt Range		2-12°		
Cross Polar Isolation		> 28 dB		
Interband Isolation		> 28 dB		
Port-to-Port Isolation		> 28 dB		
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 23 dB	> 25 dB	> 26 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 18 dB	> 18 dB
	Sector Edges	> 8 dB	> 8 dB	> 8 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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ELECTRICAL CHARACTERISTICS		Y1				
Frequency Bands		1695-2690 MHz				
		1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain	At Mid Tilt	16.5 dBi	16.9 dBi	17.5 dBi	17.4 dBi	17.6 dBi
	Over All Tilts	16.5 ± 0.6 dBi	16.9 ± 0.6 dBi	17.5 ± 0.6 dBi	17.4 ± 0.5 dBi	17.6 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 4.0°	64° ± 4.1°	61° ± 4.1°	62° ± 4.2°	62° ± 4.9°
Vertical Beamwidth (-3 dB)		7.0° ± 0.5°	6.4° ± 0.5°	5.9° ± 0.5°	5.3° ± 0.5°	4.9° ± 0.5°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 28 dB				
Interband Isolation		> 28 dB				
Port-to-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 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°)		> 25 dB	> 26 dB	> 26 dB	> 25 dB	> 27 dB
Cross Polar Discrimination	Main Direction	> 15 dB	> 16 dB	> 16 dB	> 18 dB	> 18 dB
	Sector Edges	> 10 dB	> 11 dB	> 10 dB	> 8 dB	> 5.5 dB
Maximum Power (Per Port)		250 W (at 50°C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc				
Grounding		DC Ground				

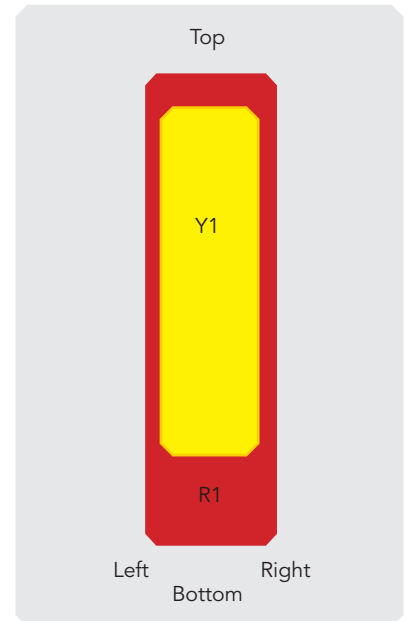
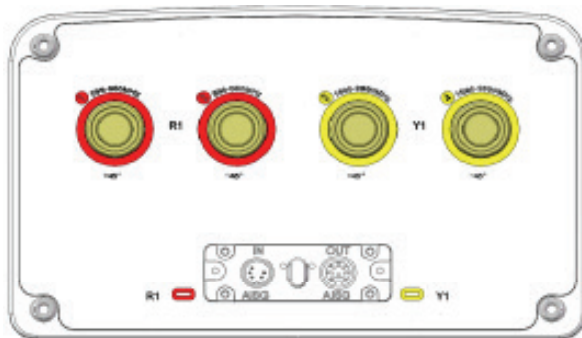
INTEGRATED RET PROPERTIES	
Power Supply	10-30VDC
Power Consumption	< 1W (Idle), < 10W (In Motion)
Hardware Interface	Pin3: RS485B; Pin5: RS485A; Pin6: 10-30V; Pin7: DC Return According to AISG/3GPP
Protocol Supported	Compliant with 3GPP/AISGv2.0
Adjustment Time (Full Range)	≤ 90 s (typical, depending 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
	<span style="color: red;">■</span> R1	698-960	1-2	4.3-10 Female or 7/16-DIN Female
<span style="color: yellow;">■</span> Y1	1695-2690	3-4	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 277 x 167 mm (78.6 x 10.9 x 6.6 in)	<b>Carton Box</b> 2.197 x 0.372 x 0.287 m (86.5 x 14.6 x 11.3 in)
Weight (excluding mounting accessory)	19 kg (41.9 lbs)	
Radome Material	UPVC	
Maximum Wind Speed	200 km/h	
Wind Loads (at 150 km/h)	Frontal	
	Rear	570 N (128.1 lbf)
	Lateral	405 N (91.0 lbf)
MOUNTING KIT OPTIONS		POLE DIAMETER
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting Bracket Kit (Included)		Ø50-Ø125 mm
		MECHANICAL TILT
		0-12°

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