

# 5965308G

5965308NG

4-Band | 8-Port | XPOL | Panel Antenna | Variable Tilt | 1497 mm

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

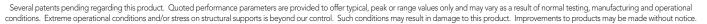
ODERING OPTIONS	MODEL NUMBER
Antenna with 4.3-10 Connectors	5965308NG
Antenna with 7/16-DIN Connectors	5965308G

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	1695-2690 MHz	1695-2690 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			

ELECTRICAL CHARACTERISTICS			R1			
5 5 1		690-960 MHz				
Frequency Band	S	690-806	790-894	880-960		
<u> </u>	At Mid Tilt	13.5 dBi	13.5 dBi 14.2 dBi			
Gain	Over All Tilts	13.3 ± 0.5 dBi	14.0 ± 0.5 dBi	14.3 ± 0.5 dBi		
Input Impedance	9		50Ω			
VSWR			< 1.5			
Polarisation			±45°			
Horizontal Beam	width (-3 dB)	68° ± 4.4°	65° ± 3.6°	$60^{\circ} \pm 4.6^{\circ}$		
Vertical Beamwid	dth (-3 dB)	16.2° ± 1.1°	6.2° ± 1.1° 14.7° ± 1.1° 13.9°			
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB (R1//R2), > 28 dB (R1//Y1,Y2)				
Interband Isolati	on		> 25 dB	> 25 dB		
Upper Sidelobe	Typical	> 15 dB	> 15 dB	> 15 dB		
Suppression	Peak to 20°	> 15 dB	> 15 dB	> 15 dB		
Front-to-Back Ra	tio (@ 180° ± 30°)	> 22 dB	> 24 dB	> 24 dB		
Cross Polar	Main Direction	> 18 dB	> 18 dB	> 18 dB		
Discrimination	Sector Edges	> 10.0 dB	> 7.5 dB	> 6.5 dB		
Maximum Power	(Per Port)	350 W (at 50°C ambient temperature)				
Intermodulation	3rd (2x43 dBm Carrier)		< -153 dBc			
Grounding			DC Ground			





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	ARACTERISTICS				R2			
					690-960 MHz			
Frequency Bands		690-806 790-894		790-894		8	80-960	
At Mid Tilt		13.5 dBi			14.2 dBi		14	4.5 dBi
Gain	Over All Tilts	13.3 ± 0.5 dl	Bi		14.0 ± 0.5 dBi		14.3	± 0.5 dBi
Input Impedance	e				50Ω			
VSWR					< 1.5			
Polarisation					±45°			
Horizontal Beamwidth (-3 dB)		$68^{\circ} \pm 4.4^{\circ}$ $65^{\circ} \pm 3.6^{\circ}$			$60^{\circ} \pm 4.6^{\circ}$			
Vertical Beamwidth (-3 dB)		16.2° ± 1.1°	>		14.7° ± 1.1°			9° ± 1.0°
Electrical Downt					2-12°			/
Cross Polar Isola					> 25 dB			
Port-to-Port Isola			> 2	25 dB (R1	//R2), > 28 dB (R1/	/Y1 Y2)		
Interband Isolati			~ 2		> 25 dB	/ 1 1,1 2/		
		> 15 dB			> 15 dB			15 dB
Upper Sidelobe Suppression	Peak to 20°	> 15 dB			> 15 dB			15 dB
Front to Back Pr	atio (@ 180° ± 30°)	> 13 dB > 22 dB			> 24 dB			24 dB
	Main Direction	> 18 dB						18 dB
Cross Polar Discrimination					> 18 dB			
	Sector Edges	> 10.0 dB		0 14/ /	> 7.5 dB		>	6.5 dB
Maximum Powe			350	0 VV (at 50	0°C ambient tempe	erature)		
	3rd (2x43 dBm Carrier)	< -153 dBc						
Grounding					DC Ground			
ELECTRICAL CH	ARACTERISTICS				Y1			
Frequency Band	s				1695-2690 MHz	1		1
		1695-1880	1850-199	90	1920-2170	2300-24	00	2490-2690
Gain	At Mid Tilt	16.6 dBi	16.9 dB	Bi	17.2 dBi	17.5 dE	Bi	17.2 dBi
	Over All Tilts	16.4 ± 0.5 dBi	16.7 ± 0.5	dBi	17.0 ± 0.5 dBi	17.3 ± 0.5	dBi	17.0 ± 0.5 dB
nput Impedance	e				50Ω			
VSWR					< 1.5			
Polarisation		±45°						
Horizontal Beam	width (-3 dB)	67° ± 6.5°	62° ± 6.0	0°	$60^{\circ} \pm 6.0^{\circ}$	60° ± 5.	5°	61° ± 6.0°
Vertical Beamwid	dth (-3 dB)	7.4° ± 0.5°	6.8° ± 0.	.4°	$6.1^{\circ} \pm 0.5^{\circ}$	5.7° ± 0.	5°	5.2° ± 0.6°
Electrical Downt	ilt Range	2-12°						
Cross Polar Isola	ition	> 26 dB						
Port-to-Port Isola	ation	> 28 dB						
	on				> 25 dB			
Interband Isolati	Typical	> 16 dB	> 16 dE	В	> 17 dB	> 17 dł	3	> 17 dB
			> 15 dE	В	> 15 dB	> 15 dl	3	> 15 dB
Jpper Sidelobe	Peak to 20°	> 15 dB	/ /J UL				-	
Upper Sidelobe Suppression		> 15 dB > 24 dB	> 13 di > 24 di	в	> 24 dB	> 25 dl	3	> 25 dB
Upper Sidelobe Suppression Front-to-Back Ra	Peak to 20°				> 24 dB > 20 dB	> 25 dl > 19 dl		> 25 dB > 18 dB
Upper Sidelobe Suppression	Peak to 20° atio (@ 180° ± 30°)	> 24 dB	> 24 dE	В			3	
Upper Sidelobe Suppression Front-to-Back Ra Cross Polar Discrimination	Peak to 20° atio (@ 180° ± 30°) Main Direction Sector Edges	> 24 dB > 22 dB	> 24 dE > 22 dE > 10 dE	B B	> 20 dB > 9.5 dB	> 19 dl > 7.0 d	3	> 18 dB
Upper Sidelobe Suppression Front-to-Back Ra Cross Polar Discrimination Maximum Power	Peak to 20° atio (@ 180° ± 30°) Main Direction Sector Edges	> 24 dB > 22 dB	> 24 dE > 22 dE > 10 dE	B B	> 20 dB	> 19 dl > 7.0 d	3	> 18 dB
Upper Sidelobe Suppression Front-to-Back Ra Cross Polar	Peak to 20° atio (@ 180° ± 30°) Main Direction	> 24 dB > 22 dB	> 24 dE > 22 dE	В	> 20 dB	> 19 dl	3	> 18 dB

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FI FCTRICAL	CHARACTERISTICS

ELECTRICAL CHARACTERISTICS		12					
Europeak		1695-2690 MHz					
Frequency Band	ds	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690	
Gain	At Mid Tilt	16.6 dBi	16.9 dBi	17.2 dBi	17.5 dBi	17.2 dBi	
Gain	Over All Tilts	16.4 ± 0.5 dBi	16.7 ± 0.5 dBi	17.0 ± 0.5 dBi	17.3 ± 0.5 dBi	17.0 ± 0.5 dBi	
Input Impedanc	ce			50Ω			
VSWR				< 1.5			
Polarisation				±45°			
Horizontal Bear	nwidth (-3 dB)	67° ± 6.5°	62° ± 6.0°	60° ± 6.0°	60° ± 5.5°	61° ± 6.0°	
Vertical Beamw	idth (-3 dB)	7.4° ± 0.5°	6.8° ± 0.4°	6.1° ± 0.5°	5.7° ± 0.5°	5.2° ± 0.6°	
Electrical Downtilt Range		2-12°					
Cross Polar Isol	ation			> 26 dB			
Port-to-Port Iso	ation	> 28 dB					
Interband Isolat	ion			> 25 dB			
Upper Sidelobe	ТурісаІ	> 16 dB	> 16 dB	> 17 dB	> 17 dB	> 17 dB	
Suppression	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB	
Front-to-Back R	atio (@ 180° ± 30°)	> 24 dB	> 24 dB	> 24 dB	> 25 dB	> 25 dB	
Cross Polar	Main Direction	> 22 dB	> 22 dB	> 20 dB	> 19 dB	> 18 dB	
Discrimination	Sector Edges	> 9.0 dB	> 10 dB	> 9.5 dB	> 7.0 dB	> 5.0 dB	
Maximum Powe	er (Per Port)		250 W (a	at 50°C ambient tem	perature)		
Intermodulatior	n 3rd (2x43 dBm Carrier)			< -153 dBc			
Grounding				DC Ground			

### INTEGRATED RET PROPERTIES Compliant with 3GPP/AISGv2.0 Protocol 10-30VDC Power Supply ≤ 90 sec (typical, depending on antenna type) Adjustment Time (Full Range) < 2 W (Idle); < 10 W (In Motion) **Power Consumption** RS485 and Power Hardware Interface Compliant to EN 60950/UL 60950/ RoHS, CE Safety Standard Adjustment Cycles > 20,000 Torque Max ≥ 160 mN.m IP65 **Protection Class** Lightning Protection Rating IEC 61000-4-5 Current Pulse Profile, 8/20 µs 10 Repetitions Min. @ 8 kA

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Connectors

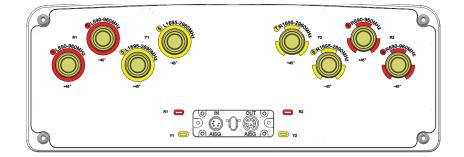
(2x) 8-Pin Circle Connector

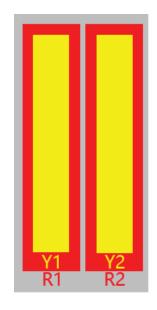


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F	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
AYOUT	📕 R1	690-960	1-2	4.3-10 Female or 7/16-DIN Female
1	<b>R</b> 2	690-960	3-4	4.3-10 Female or 7/16-DIN Female
RRAY	<mark>_</mark> Y1	1695-2690	5-6	4.3-10 Female or 7/16-DIN Female
٩	Y2	1695-2690	7-8	4.3-10 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 CH	ADACTEDISTICS			
Dimensions (Heigh	t x Width x Depth)	1497 x 467 x 167 mm (5	8.9 x 18.4 x 6.6 in)	
Weight (excluding mounting accessory)		24.5 kg (54	.0 lbs)	
Weight with Bracket	ts	29 kg (63.9	9 lbs)	
Radome Material		Fibergla	ass	
Connector Type		(8x) 4.3-10 Female or 7/16-DIN Female		
Maximum Wind Sp	eed	200 km/h (124.3 mph)		
	Frontal	645 N (145.0 lbf)		
Wind Load at 150 km/h (93.2 mph)	Rear	720 N (161.8 lbf)		
Lateral		285 N (64.	0 lbf)	
MOUNTING KIT OPTIONS		POLE DIAMETER	MECHANICAL TILT RANGE	
All mounting brack	et kits are ordered sep	parately unless otherwise indicated.	I	
Mounting Bracket	Kit (Included)	Ø50-Ø125 mm (Ø2.0-Ø4.9 in)	0-16°	

PACKAGING

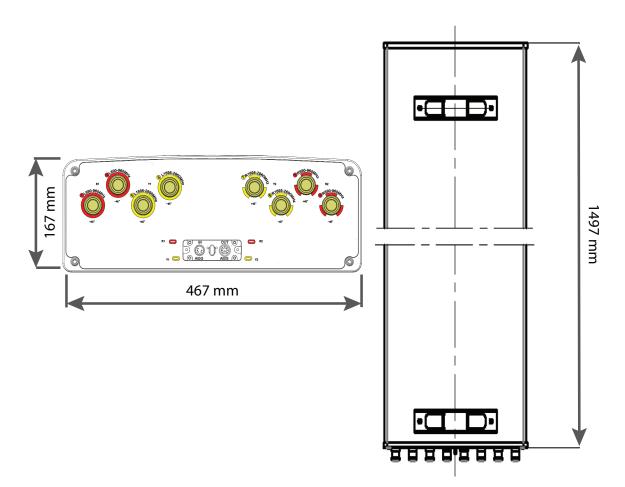
## Carton Box

1.697 x 0.562 x 0.287 m (66.8 x 22.1 x 11.3 in)

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