

## 5962308G

3Xpol | 65° Az | 16.6 / 16.6 / 18.1 | 2-12° / 2-12° / 2-12° | 2497 x 467 x 167 mm

- Tri band antenna, dual polarisation, 6 connectors
- Independent tilt on each band 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with three integrated RCUs and three indicators

ORDERING OPTIONS		MODEL NUMBER		
Antenna with 4.3-10 Connectors		5962308NG		
Antenna with 7/16-DIN Connectors		5962308G		
ACCESS PORT DESCRIPTION (CONNECTORS)				
The antenna has 6 colour-coded connectors located at the bottom face.				
Frequency Designation		R1	R2	Y1
Frequency Range		690-960 MHz	690-960 MHz	1695-2690 MHz
Polarisation		Xpol	Xpol	Xpol
Horizontal Beamwidth		65°	65°	65°
Electrical Downtilt Range		2-12°	2-12°	2-12°
Connector Type		(2x) 4.3/10 or 7/16-DIN Female	(2x) 4.3/10 or 7/16-DIN Female	(2x) 4.3/10 or 7/16-DIN Female
ELECTRICAL CHARACTERISTICS		R1		
Frequency Bands		690-960 MHz		
		690-806 MHz	790-894 MHz	880-960 MHz
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°		
Interband Isolation		> 26 dB		
Cross Polar Isolation		> 26 dB		
Port to Port Isolation		> 28 dB		
First Upper Sidelobe Suppression		> 16 dB	> 16 dB	> 16 dB
Upper Sidelobe Suppression (Peak to 20°)		> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio, 180° ± 30°		> 22 dB	> 24 dB	> 24 dB
Cross Polar Ratio	Main Direction (0°)	> 18 dB	> 18 dB	> 18 dB
	Sector Edges (±60°)	> 10 dB	> 7.5 dB	> 6.5 dB
Maximum Power (Per Port, 50° C)		350 W		
Intermodulation 3rd Order for 2 x 43 dBm Carriers		< -153 dBc		



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.

## 5962308G

3Xpol | 65° Az | 16.6 / 16.6 / 18.1 | 2-12° / 2-12° / 2-12° | 2497 x 467 x 167 mm

ELECTRICAL CHARACTERISTICS		R2		
Frequency Bands		690-960 MHz		
		690-806 MHz	790-894 MHz	880-960 MHz
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°		
Interband Isolation		> 26 dB		
Cross Polar Isolation		> 26 dB		
Port to Port Isolation		> 28 dB		
First Upper Sidelobe Suppression		> 16 dB	> 16 dB	> 16 dB
Upper Sidelobe Suppression (Peak to 20°)		> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio, 180° ± 30°		> 22 dB	> 24 dB	> 24 dB
Cross Polar Ratio	Main Direction (0°)	> 18 dB	> 18 dB	> 18 dB
	Sector Edges (±60°)	> 10 dB	> 7.5 dB	> 6.5 dB
Maximum Power (Per Port, 50° C)		350 W		
Intermodulation 3rd Order for 2 x 43 dBm Carriers		< -153 dBc		

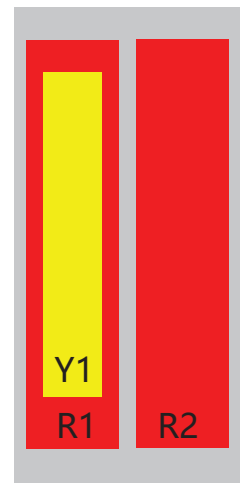
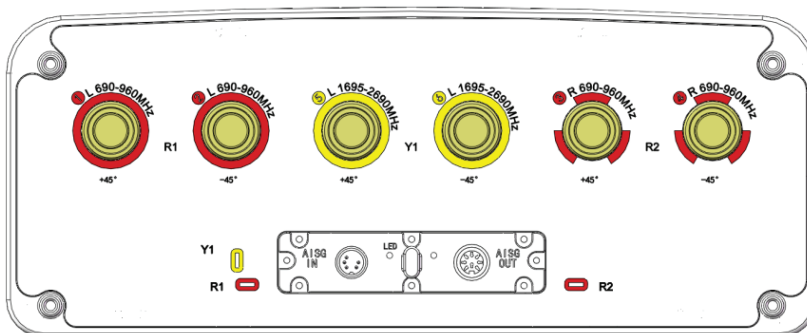
ELECTRICAL CHARACTERISTICS		Y1				
Frequency Bands		1695-2690 MHz				
		1695-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	17.4 dBi	17.7 dBi	17.9 dBi	17.9 dBi	18.1 dBi
	Over All Tilts	17.3 ± 0.6 dBi	17.7 ± 0.6 dBi	17.9 ± 0.6 dBi	17.9 ± 0.5 dBi	17.9 ± 0.6 dBi
Input 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°				
Interband Isolation		> 26 dB				
Cross Polar Isolation		> 26 dB				
Port to Port Isolation		> 28 dB				
First Upper Sidelobe Suppression		> 17 dB	> 17 dB	> 17 dB	> 17 dB	> 17 dB
Upper Sidelobe Suppression (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 Ratio	Main Direction (0°)	> 22 dB	> 20 dB	> 19 dB	> 18 dB	> 17 dB
	Sector Edges (±60°)	> 9 dB	> 9 dB	> 8 dB	> 8 dB	> 5 dB
Maximum Power (Per Port, 50° C)		250 W				
Intermodulation 3rd Order for 2 x 43 dBm Carriers		< -153 dBc				

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.

## 5962308G

3Xpol | 65° Az | 16.6 / 16.6 / 18.1 | 2-12° / 2-12° / 2-12° | 2497 x 467 x 167 mm

INTEGRATED RET PROPERTIES	
Power Supply	10-30VDC Compliant with 3GPP/AISGv2.0
Power Consumption	< 1W (Idle), < 10W (In Motion)
Hardware Interface	Pin 3: RS485B; Pin 5: RS485A; Pin 6: 10-30V; Pin 7: DC Return; According to AISG/3GPP
Protocol Supported	Compliant to AISG v2.0 and 3GPP
Adjustment Time (Full Range)	≤ 90 seconds (typical, dependent on antenna type)
Adjustment Cycles	> 10,000
Torque Max	≥ 160 mN.m
Safety Standard	Compliant to EN 60950/UL 60950/ RoHS, CE
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA IEC 61312-1B 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



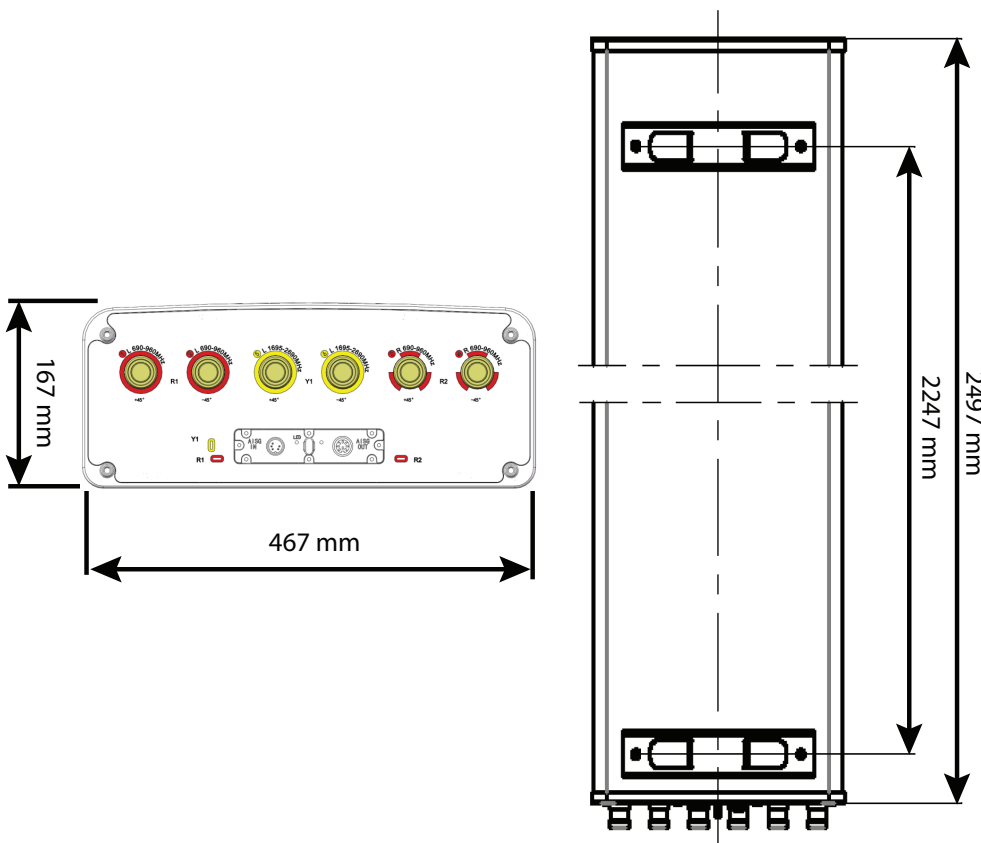
ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	<span style="color: red;">■</span> R1	690-960	1-2	4.3-10 Female or 7/16 DIN Female
	<span style="color: red;">■</span> R2	690-960	3-4	4.3-10 Female or 7/16 DIN Female
	<span style="color: yellow;">■</span> Y1	1695-2690	5-6	4.3-10 Female or 7/16 DIN Female

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

## 5962308G

3Xpol | 65° Az | 16.6 / 16.6 / 18.1 | 2-12° / 2-12° / 2-12° | 2497 x 467 x 167 mm

ENVIRONMENTAL CHARACTERISTICS		PACKAGING
Lightning Protection	DC Ground	<b>Carton Box</b> 2.697 x 0.562 x 0.287 m (106.1 x 22.1 x 11.2 in)
MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)	2497 x 467 x 167 mm (98.3 x 18.3 x 6.6 in)	
Weight (excluding mounting accessory)	36.5 kg (80.4 lbs)	
Shroud	Fibreglass	
Surviva Wind Speed	200 km/h (124.2 mph)	
Wind Load at 150 km/h	Frontal	1080 N (242.7 lbf)
	Rear	1205 N (270.8 lbf)
	Lateral	475 N (106.7 lbf)
MOUNTING KIT OPTIONS		MECHANICAL TILT RANGE
All mounting bracket kits are ordered separately unless otherwise indicated.		
Brackets for pole Ø50 to Ø125 mm (included)	0°-10°	



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.