

6886308G

6886308NG

4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1547 mm

- Quad band antenna, dual polarisation, 8 connectors
- Independent, continuously adjustable tilt on each band 2-12° / 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with four integrated RCUs

ORDERING OPTIONS	MODEL NUMBER
Antenna with 4.3-10 Connectors	6886308NG
Antenna with 7/16-DIN Connectors	6886308G

ACCESS PORT DESCRIPTION (CONNECTORS)				
The antenna has 8 colour-coded connectors located at the bottom face.				
Frequency Designation	R1	Y1	Y2	Y3
Frequency Range	698-960 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 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 or 7/16-DIN Female	(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		698-960 MHz		
		698-806 MHz	790-894 MHz	880-960 MHz
Gain	at Mid Tilt	14.2 dBi	14.5 dBi	14.8 dBi
	Over All Tilts	14.0 ± 0.6 dBi	14.3 ± 0.6 dBi	14.6 ± 0.6 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		70° ± 5.5°	68° ± 4.5°	66° ± 4.5°
Vertical Beamwidth (-3 dB)		15.5° ± 0.7°	14.7° ± 0.8°	13.2° ± 0.8°
Electrical Downtilt Range		2-12°		
Cross-Polar Isolation		> 25 dB		
Interband Isolation		> 25 dB		
Port-to-Port Isolation		> 25 dB		
Upper Sidelobe Suppressor	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	> 24 dB	> 25 dB
Cross Polar Ratio	Main Direction (0°)	> 19 dB	> 18 dB	> 17 dB
	Sector Edges (±60°)	> 8.0 dB	> 8.0 dB	> 7.5 dB
Maximum Power (Per Port)		350 W (at 50° C ambient temperature)		
Intermodulation 3rd Order for 2 x 43 dBm Carrier		< -153 dBc		



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4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1547 mm

ELECTRICAL CHARACTERISTICS		Y1				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	15.0 dBi	15.3 dBi	15.6 dBi	15.8 dBi	15.6 dBi
	Over All Tilts	14.8 ± 0.6 dBi	15.1 ± 0.6 dBi	15.4 ± 0.6 dBi	15.6 ± 0.5 dBi	15.4 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 6.5°	65° ± 6.5°	63° ± 6.5°	60° ± 6.0°	62° ± 6.5°
Vertical Beamwidth (-3 dB)		10.3° ± 1.1°	9.4° ± 0.7°	8.8° ± 0.9°	8.2° ± 0.5°	7.4° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 25 dB				
Interband Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB				
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 25 dB	> 24 dB	> 24 dB	> 26 dB	> 26 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 21 dB	> 20 dB	> 18 dB	> 18 dB
	Sector Edges	> 10 dB	> 9.5 dB	> 9 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				

ELECTRICAL CHARACTERISTICS		Y2				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	15.2 dBi	15.5 dBi	15.8 dBi	16.2 dBi	16.2 dBi
	Over All Tilts	15.0 ± 0.6 dBi	15.3 ± 0.6 dBi	15.6 ± 0.6 dBi	16.0 ± 0.5 dBi	16.0 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		66° ± 6.5°	66° ± 6.5°	67° ± 6.5°	63° ± 6.0°	62° ± 6.5°
Vertical Beamwidth (-3 dB)		11.9° ± 1.1°	11.0° ± 0.7°	10.1° ± 0.9°	9.2° ± 0.5°	8.3° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 25 dB				
Interband Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB				
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 16 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 25 dB	> 24 dB	> 24 dB	> 26 dB	> 26 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 21 dB	> 20 dB	> 18 dB	> 18 dB
	Sector Edges	> 10 dB	> 9.5 dB	> 9 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				

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ELECTRICAL CHARACTERISTICS		Y3				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	15.0 dBi	15.3 dBi	15.6 dBi	16.0 dBi	16.0 dBi
	Over All Tilts	14.8 ± 0.6 dBi	15.1 ± 0.6 dBi	15.4 ± 0.6 dBi	15.8 ± 0.5 dBi	15.8 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		66° ± 6.5°	66° ± 6.5°	67° ± 6.5°	63° ± 6.0°	62° ± 6.5°
Vertical Beamwidth (-3 dB)		11.9° ± 1.1°	11.0° ± 0.7°	10.1° ± 0.9°	9.2° ± 0.5°	8.3° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 25 dB				
Interband Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB				
Upper Sidelobe Suppression	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 16 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 25 dB	> 24 dB	> 24 dB	> 26 dB	> 26 dB
Cross Polar Discrimination	Main Direction	> 18 dB	> 21 dB	> 20 dB	> 18 dB	> 18 dB
	Sector Edges	> 10 dB	> 9.5 dB	> 9 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				

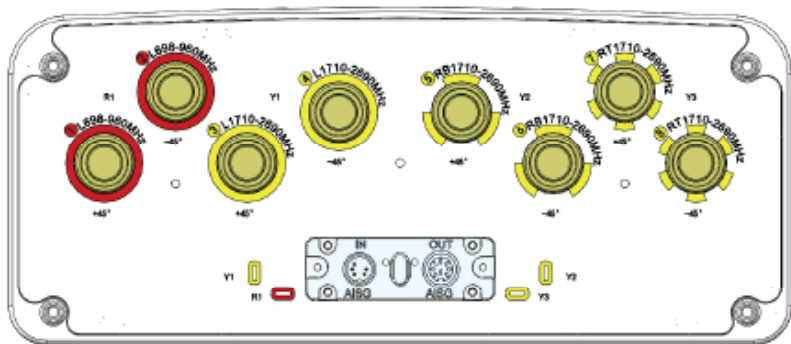
INTEGRATED RET PROPERTIES	
Protocol	Compliant with 3GPP/AISGv2.0
Power Supply	10-30VDC
Adjustment Time (Full Range)	≤ 90 sec (typical, depending on antenna type)
Power Consumption	< 2 W (Idle); < 10 W (In Motion)
Accuracy	≤ 0.5°
Hardware Interface	RS485 and Power
Safety Standard	Compliant to EN 60950/UL 60950/ RoHS, CE
Adjustment Cycles	> 20,000
Torque Max	≥ 160 mN.m
Remote Control	Can manage from OMC, BTS/NodeB
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA
Connectors	(2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG Daisy Chain In: Male; Daisy Chain Out: Female Pin3: RS485+; Pin5: RS485-; Pin6: 10-30V; Pin7: GND Female connector: 8 Pins, Male connector: 5 Pins

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ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	698-960	1-2	4.3-10 Female or 7/16-DIN Female
	Y1	1710-2690	3-4	4.3-10 Female or 7/16-DIN Female
	Y2	1710-2690	5-6	4.3-10 Female or 7/16-DIN Female
	Y3	1710-2690	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.

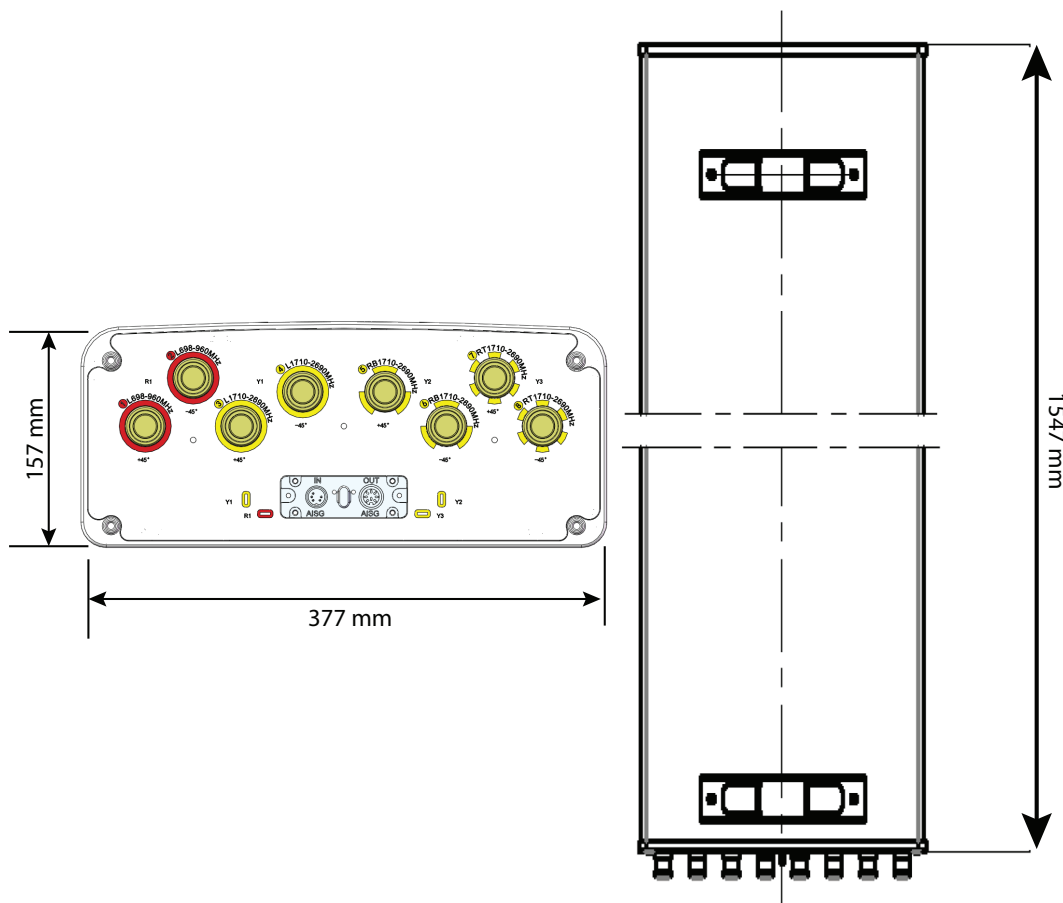
ENVIRONMENTAL CHARACTERISTICS		PACKAGING
Operating Temperature Range	-40° to +60° C (-40° to 140° F)	Carton Box 1.747 x 0.472 x 0.277 m (68.8 x 18.6 x 10.9 in)
MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)	1547 x 377 x 157 mm (60.9 x 14.8 x 6.2 in)	
Weight (excluding mounting accessory)	22 kg (48.5 lbs)	
Radome Material	Fiberglass	
Weight (with mounting accessory)	26.5 kg (58.4 lbs)	
Maximum Wind Speed	200 km/h (124.3 mph)	
Wind Load at 150 km/h	Frontal	540 N (121.3 lbf)
	Rear	600 N (134.8 lbf)
	Lateral	280 N (62.9 lbf)
MOUNTING KIT OPTIONS	POLE DIAMETER	MECHANICAL TILT
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting and Downtilt Bracket Kit (Included)	Ø50-Ø125 mm (Ø2.0-Ø4.9 mm)	0-16

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