5788308G

5788308NG

7-Band, 14-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1997 mm

- Hepta band antenna, dual polarisation, 14 connectors
- Independent, continuously adjustable tilt on each band 2-12° / 2-12° / 2-12° / 2-12° / 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with seven integrated RCUs

ACCESS PORT DESCRIPTION (CONNECTORS)							
The antenna has 14 colour-coded connectors located at the bottom face.							
Frequency Designation	R1	R2	Y1	Y2	Y3	Y4	Y5
Frequency Range	694-960 MHz	694-960 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol	Xpol	Xpol	Xpol	Xpol	Xpol
Horizontal Beamwidth	65°	65°	65°	65°	65°	65°	65°
Electrical Downtilt Range	2-12°	2-12°	2-12°	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	(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

ORDERING OPTIONS

Select from the different options listed below

SELECT ELECTRICAL DOWNTILT CONTROL & AISG PROTOCOL	SELECT ACTUATOR	SELECT CONNECTOR TYPE	ANTENNA MODEL NUMBER
Manual Electrical Tilt (MET)	---	4.3-10 Female	5788308N
		7/16 DIN Female	5788308
Remote Electrical Tilt (RET) AISG v2.0 / 3GPP	Multi-Device Control Unit (MDCU)	4.3-10 Female	5788308NG
		7/16 DIN Female	5788308G

ELECTRICAL CHARACTERISTICS		R1 / R2		
Frequency Bands		694-960 MHz		
		694-824 MHz	806-896 MHz	880-960 MHz
Gain	at Mid Tilt	14.6 dBi	15.1 dBi	15.6 dBi
	Over All Tilts	14.6 ± 0.5 dBi	15.0 ± 0.5 dBi	15.5 ± 0.4 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		65° ± 4.5°	62° ± 4.5°	59° ± 4.5°
Vertical Beamwidth (-3 dB)		11.9° ± 1.1°	10.4° ± 0.9°	9.7° ± 0.8°
Electrical Downtilt Range		2-12°		
Cross-Polar Isolation		> 26 dB		
Port-to-Port Isolation		> 28 dB (R1,R2 // Y1,Y2,Y3,Y4,Y5), > 26 dB (R1 // R2)		
Upper Sidelobe Suppresson	Typical	> 15 dB	> 15 dB	> 15 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 22 dB	> 24 dB	> 25 dB
Horizontal Port-to-Port Tracking		< 2.0 dB	< 2.5 dB	< 2.5 dB
Cross Polar Ratio	Main Direction (0°)	> 18 dB	> 18 dB	> 18 dB
	Sector Edges (±60°)	> 9.0 dB	> 7.0 dB	> 5.5 dB
Maximum Power (Per Port)		250 W (at 50° C ambient temperature)		
Intermodulation 3rd Order for 2 x 43 dBm Carrier		< -150 dBc		
Grounding		DC Ground		

Standard values based on NGMN-P-BASTA version 10.0 recommendation.

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ELECTRICAL CHARACTERISTICS		Y1 / Y4				
Frequency Bands		1710-2690 MHz				
		1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain	At Mid Tilt	15.4 dBi	15.7 dBi	16.0 dBi	16.3 dBi	16.2 dBi
	Over All Tilts	15.2 ± 0.6 dBi	15.5 ± 0.5 dBi	15.8 ± 0.5 dBi	16.1 ± 0.5 dBi	16.0 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 5.5°	64° ± 5.2°	68° ± 5.5°	60° ± 5.5°	60° ± 6.2°
Vertical Beamwidth (-3 dB)		10.5° ± 1.1°	9.6° ± 0.7°	9.0° ± 0.9°	8.4° ± 0.5°	7.6° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 26 dB				
Port-to-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 16 dB	> 16 dB	> 15 dB	> 15 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 14 dB	> 14 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 25 dB	≥ 25 dB	> 25 dB	≥ 26 dB	≥ 26 dB
Cross Polar Discrimination	Main Direction	> 17 dB	> 18 dB	> 18 dB	> 18 dB	> 17 dB
	Sector Edges	> 7.0 dB	> 9.0 dB	> 9.0 dB	> 7.5 dB	> 5.2 dB
Maximum Power (Per Port)		200 W (at 50°C ambient temperature)				
Intermodulation		< -150 dBc				
Grounding		DC Ground				

Standard values based on NGMN-P-BASTA version 10.0 recommendation.

ELECTRICAL CHARACTERISTICS		Y2 / Y5				
Frequency Bands		1710-2690 MHz				
		1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain	At Mid Tilt	15.2 dBi	15.5 dBi	15.8 dBi	16.2 dBi	16.0 dBi
	Over All Tilts	15.0 ± 0.6 dBi	15.3 ± 0.5 dBi	15.6 ± 0.5 dBi	15.9 ± 0.5 dBi	15.8 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 5.5°	64° ± 5.2°	68° ± 5.5°	60° ± 5.5°	60° ± 6.2°
Vertical Beamwidth (-3 dB)		10.3° ± 1.1°	9.4° ± 0.7°	8.8° ± 0.9°	8.2° ± 0.5°	7.3° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 26 dB				
Port-to-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 16 dB	> 16 dB	> 15 dB	> 15 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 14 dB	> 14 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 25 dB	≥ 25 dB	> 25 dB	≥ 26 dB	≥ 26 dB
Cross Polar Discrimination	Main Direction	> 17 dB	> 18 dB	> 18 dB	> 18 dB	> 17 dB
	Sector Edges	> 7.0 dB	> 9.0 dB	> 9.0 dB	> 7.5 dB	> 5.2 dB
Maximum Power (Per Port)		200 W (at 50°C ambient temperature)				
Intermodulation		< -150 dBc				
Grounding		DC Ground				

Standard values based on NGMN-P-BASTA version 10.0 recommendation.

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ELECTRICAL CHARACTERISTICS		Y3				
Frequency Bands		1710-2690 MHz				
		1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain	At Mid Tilt	17.0 dBi	17.3 dBi	17.5 dBi	17.7 dBi	17.6 dBi
	Over All Tilts	16.8 ± 0.6 dBi	17.1 ± 0.5 dBi	17.3 ± 0.5 dBi	17.5 ± 0.5 dBi	17.4 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		67° ± 4.6°	64° ± 3.2°	63° ± 3.5°	61° ± 4.4°	58° ± 6.2°
Vertical Beamwidth (-3 dB)		7.2° ± 0.6°	6.7° ± 0.6°	6.2° ± 0.6°	5.7° ± 0.6°	5.2° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 26 dB				
Port-to-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 16 dB	> 16 dB	> 15 dB	> 15 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 26 dB	> 26 dB	> 27 dB	> 27 dB	> 27 dB
Cross Polar Discrimination	Main Direction	> 16 dB	> 16 dB	> 17 dB	> 18 dB	> 18 dB
	Sector Edges	> 10.0 dB	> 9.0 dB	> 9.0 dB	> 8.0 dB	> 5.0 dB
Maximum Power (Per Port)		200 W (at 50°C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -150 dBc				
Grounding		DC Ground				

Standard values based on NGMN-P-BASTA version 10.0 recommendation.

694-960 | 694-960 | 1710-2690 | 1710-2690 | 1710-2690 | 1710-2690 | 1710-2690 MHz

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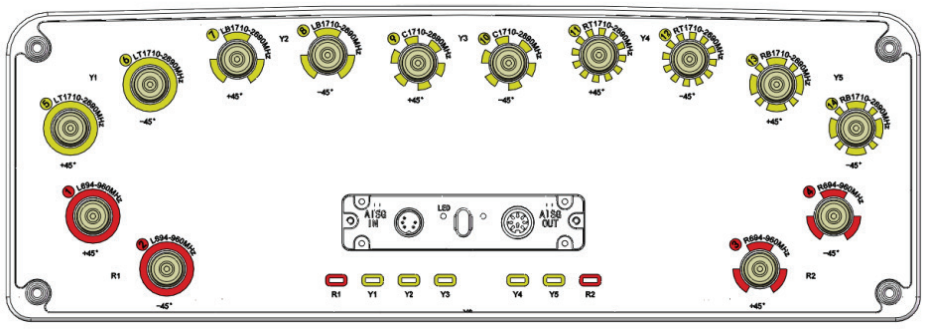
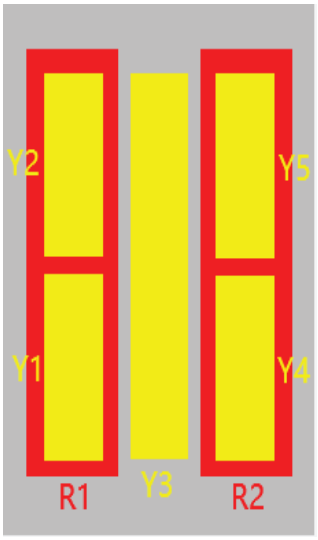
INTEGRATED RET PROPERTIES	
Power Supply	10-30VDC Compliant with 3GPP/AISGv2.0
Power Consumption	≤ 2W (Idle), ≤ 10W (In Motion)
Hardware Interface	RS485 and Power
Logical Interface	HEX Coded Commands Based on HDLC Protocol
Protocol Supported	AISG v2.0
Adjustment Time (Full Range)	< 4Min
Adjustment Cycles	> 20,000
Torque Max	≥ 160 mN.m
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 Pin 3: RS485+; Pin 5: RS485-; Pin 6: 10~30V; Pin 7: GND





ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	694-960	1-2	4.3-10 Female or 7/16 DIN Female
	R2	694-960	3-4	4.3-10 Female or 7/16 DIN Female
	Y1	1710-2690	5-6	4.3-10 Female or 7/16 DIN Female
	Y2	1710-2690	7-8	4.3-10 Female or 7/16 DIN Female
	Y3	1710-2690	9-10	4.3-10 Female or 7/16 DIN Female
	Y4	1710-2690	11-12	4.3-10 Female or 7/16 DIN Female
	Y5	1710-2690	13-14	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.

694-960 | 694-960 | 1710-2690 | 1710-2690 | 1710-2690 | 1710-2690 | 1710-2690 MHz

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MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)		1997 x 467 x 167 mm (78.6 x 18.3 x 6.5 in)
Weight (excluding mounting accessory)		33.5 kg (73.8 lbs)
Weight with mounting accessory		38 kg (83.7 lbs)
Radome Material		Fiberglass
Operating Temperature		-40°C to +60°C
Maximum Wind Speed		200 km/h
Wind Load at 150 km/h (93.2 mph)	Frontal	860 N (193.3 lbf)
	Rear	965 N (216.9 lbf)
	Lateral	380 N (85.4 lbf)

MOUNTING KIT OPTIONS	POLE DIAMETER	MECHANICAL TILT
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting Bracket Kit (Included)	Ø50-Ø125 mm	0°-12°

PACKAGING
Carton Box 2.197 x 0.562 x 0.287 m (86.4 x 22.1 x 11.2 in)