

## 6177508NG

1-Band, 9-Port, 75°, XPOL, TDD Panel Antenna, Variable Tilt, 1127 mm

- Single band antenna, dual polarisation, 6 connectors
- Independent, continuously adjustable tilt on each band 2-12°
- RET version, 3GPP/AISG2.0 with one integrated RCUs

### ACCESS PORT DESCRIPTION (CONNECTORS)

The antenna has 9 colour-coded connectors located at the bottom face.

Frequency Designation	P1
Frequency Range	3300-3800 MHz
Polarisation	Xpol
Horizontal Beamwidth	75°
Electrical Downtilt Range	2-12°
Connector Type	(8x)4.3/10 Female & (1x) 4.3/10 Female

### ELECTRICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS		P1	
Frequency Bands		3300-3800 MHz	
		3300-3600 MHz	3600-3800 MHz
Input Impedance		50Ω	
VSWR		< 1.5	
Return loss		> 14 dB	
Polarisation		±45°	
Electrical Downtilt Range		2-12°	
Single Column Width	Gain	15.5 ± 1 dBi	15.7 ± 1 dBi
	Horizontal Beamwidth (dB)	75° ± 10°	65° ± 10°
	Vertical Beamwidth (3dB)	5.8° ± 0.6°	5.5° ± 0.6°
	Cross-Polar Discrimination (0°)	≥ 15 dB	≥ 15 dB
	First Upper Sidelobe Suppression	≥ 15 dB	≥ 15 dB
	Front-to-Back Ratio	≥ 25 dB	≥ 25 dB
65° Broadcast Beam	Gain (Typical)	17.0 ± 0.6 dBi	17.2 ± 0.6 dBi
	Horizontal Beamwidth (dB)	65°	65°
	Vertical Beamwidth (dB)	5.8° ± 0.6°	5.5° ± 0.6°
	Cross-Polar Discrimination (0°)	≥ 15 dB	≥ 15 dB
	First Upper Sidelobe Suppression	≥ 15 dB	≥ 15 dB
	Front-to-Back Ratio	≥ 27 dB	≥ 27 dB
0° Direct Service Beam	Gain	21 ± 0.5 dBi	21.2 ± 0.5 dBi
	Horizontal Beamwidth (3dB)	< 25 dB	< 25 dB
	Cross-Polar Ratio	≥ 18 dB	≥ 18 dB
	Front-to-Back Ratio	≥ 30 dB	≥ 30 dB
±30° Direct Service Beam	Gain	18 dBi	18.2 dBi
	Horizontal Beamwidth (3dB)	< 30°	< 30°
Calibration and Electrical Parameter	Coupling Factor Between Calibration and Each Antenna Port	-26 ± 2 dB	
	Maximum Amplitude Tolerance from Calibration Port to Antenna Port	≤ 0.7 dB	
	Maximum Phase Tolerance from Calibration Port to Antenna Port	≤ 9 dB	
	Average Power Per Port	25 W	
Isolation	Co-Polar Isolation Between Ports	≥ 20 dB	
	Cross-Polar Isolation Between Ports	≥ 25 dB	
Grounding	DC Ground		



A GLOBAL INITIATIVE



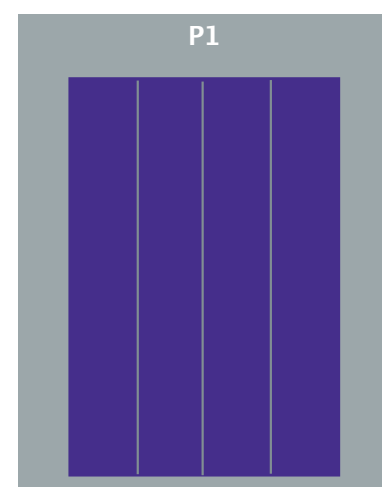
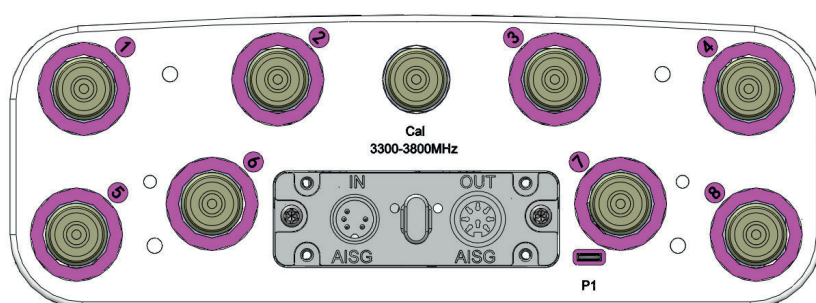
Standard values based on NGMN-P-BASTA version 10.0 recommendation.

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.

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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
Remote control	OMC, BTS / NodeB
Adjustment Cycles	> 20,000
Torque Max	≥ 160 mN.m
Protection Class	IP65
Housing Material	Aluminum
Mounting	Directly onto Antenna
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA
Connectors	2 x 8 Pins Connector According To IEC60130-9 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



ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	P1	3300-3800	1-8	(8x) 4.3/10 Female and (1x) 4.3/10 Female

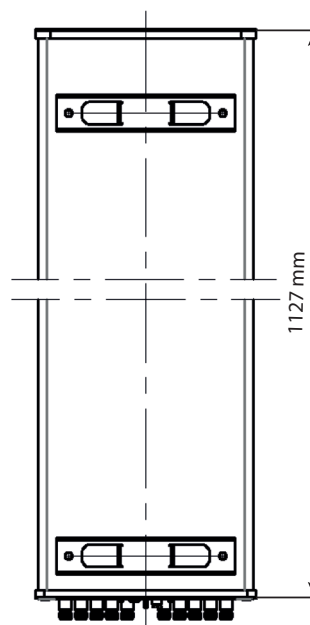
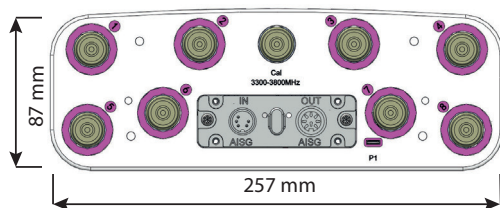
Diagram shown at right depicts the view from the front of the antenna. The illustration is not shown to scale.

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MECHANICAL CHARACTERISTICS		PACKAGING
Dimensions (Height x Width x Depth)	1127 x 257 x 87 mm (44.4 x 10.1 x 3.4 in)	<b>Carton Box</b> 1.307 x 0.352 x 0.207 m (51.5 x 13.9 x 8.1 in)
Weight (excluding mounting accessory)	10.5 kg (23.1 lbs)	
Weight with brackets	13.5 kg (29.8 lbs)	
Radome Material	UPVC	
Maximum Wind Speed	200 km/h (124.3 mph)	
Wind Load at 150 km/h	Front	
	Lateral	300 N (67.4 lbf)
	Rear	110 N (24.7 lbf)
Operating Temperature	-40° to +60° C (-40° to 140° F)	
MOUNTING KIT OPTIONS	POLE DIAMETER	MECHANICAL TILT
All mounting bracket kits are ordered separately unless otherwise indicated.		
Mounting and Downtilt Bracket Kit (Included)	Ø50-Ø115 mm (Ø2.0-Ø4.5 mm)	0-16°



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