Amphenol ANTENNA SOLUTIONS

9-Port Antenna

3300-3800 MHz

75° | 1127 mm

6186108MG

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

- 1-band antenna, dual polarisation, 9 connectors
- Independent, continuously adjustable tilt on each band 2-12°
- RET version, 3GPP/AISG2.0 with one integrated RCU

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	(1x) MQ4 & (1x) MQ5

ORDERING OPTIONS Select from the different options listed below

SELECT ELECTRICAL DOWNTILT CONTROL & AISG PROTOCOL	SELECT ACTUATOR	ANTENNA MODEL NUMBER
Remote Electrical Tilt (RET) AISG v2.0 / 3GPP	Integrated RET	6186108MG

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	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	65°	65°
	Vertical Beamwidth	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°	< 25°
	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°

Standard values based on NGMN-P-BASTA version 11.1 recommendation.

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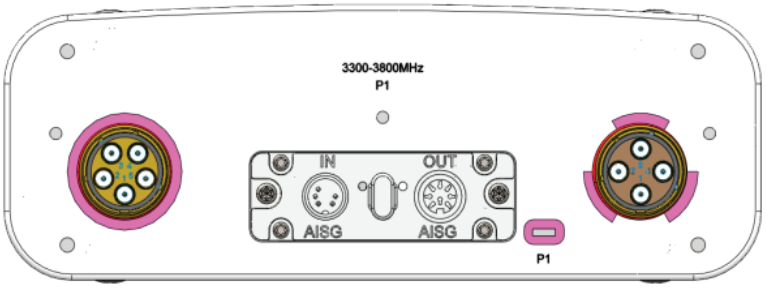
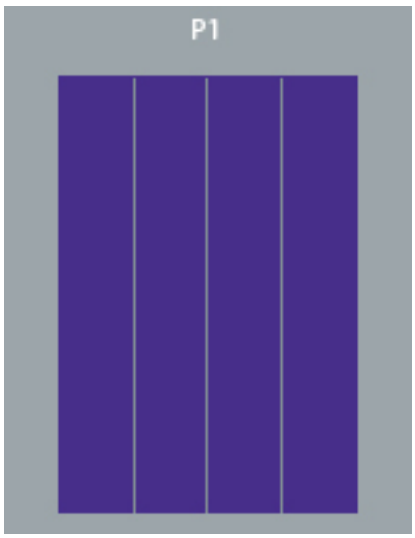
Beamforming Characteristics		
Calibration and Electrical Parameter	Coupling Factor Between Calibration and Each Antenna Port	-26 ± 2 dB
	Maximum Amplitude Tolerance from Calibration Port to Input Ports	≤ 0.7 dB
	Maximum Phase Tolerance from Calibration Port to Input Ports	≤ 9 dB
	Average Power Per Port	25 W
Isolation	Co-Polar Isolation Between Ports	≥ 20 dB
	Cross-Polsar Isolation Between Ports	≥ 25 dB
Grounding		DC Ground

Standard values based on NGMN-P-BASTA version 11.1 recommendation.

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
Housing Color	Aluminum Silver
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	1-9	(1x) MQ4 and (1x) MQ5

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		
Dimensions (Height x Width x Depth)		1127 x 257 x 87 mm (44.4 x 10.1 x 3.4 in)
Weight (excluding mounting accessory)		10.5 kg (23.1 lbs)
Weight with brackets		14.5 kg (32.0 lbs)
Radome Material		UPVC
Maximum Wind Speed		200 km/h (124.3 mph)
Wind Load at 150 km/h	Front	270 N (60.7 lbf)
	Lateral	110 N (24.7 lbf)
	Rear	300 N (67.4 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°

PACKAGING

Carton Box
1.307 x 0.352 x 0.207 m
(51.5 x 13.9 x 8.1 in)