Amphenol ANTENNA SOLUTIONS

8-Port Antenna

690-960 | 1695-2690 | 1695-2690 | 1695-2690 MHz

65° | 1998 mm

6888308NG

4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1998 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

ACCESS PORT DESCRIPTION (CONNECTORS)				
The antenna has 8 colour-coded connectors located at the bottom face.				
Frequency Designation	R1	Y1	Y2	Y3
Frequency Range	690-960 MHz	1695-2690 MHz	1695-2690 MHz	1695-2690 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 Female	(2x) 4.3-10 Female	(2x) 4.3-10 Female	(2x) 4.3-10 Female

ELECTRICAL CHARACTERISTICS		R1		
Frequency Bands		690-960 MHz		
		690-806 MHz	790-894 MHz	880-960 MHz
Gain	at Mid Tilt	15.0 dBi	15.4 dBi	15.8 dBi
	Over All Tilts	14.8 ± 0.5 dBi	15.2 ± 0.5 dBi	15.6 ± 0.5 dBi
Input Impedance		50Ω		
VSWR		< 1.5		
Return Loss		> 14 dB		
Polarisation		±45°		
Horizontal Beamwidth (-3 dB)		66° ± 3.4°	64° ± 3.6°	62° ± 3.6°
Vertical Beamwidth (-3 dB)		11.9° ± 1.1°	10.7° ± 0.9°	9.3° ± 0.9°
Electrical Downtilt Range		2-12°		
Cross-Polar Isolation		> 25 dB		
Interband Isolation		> 25 dB		
Port-to-Port Isolation		> 25 dB		
Upper Sidelobe Suppresson	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		> 24 dB	> 25 dB	> 25 dB
Cross Polar Ratio	Main Direction (0°)	> 18 dB	> 18 dB	> 18 dB
	Sector Edges (±60°)	> 7 dB	> 7.5 dB	> 8.5 dB
Lightening Protection		DC Ground		
Maximum Power (Per Port)		250 W (at 50° C ambient temperature)		
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc		

3GPP A GLOBAL INITIATIVE

AISG Antenna Interface Standards Group

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4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1998 mm

ELECTRICAL CHARACTERISTICS		Y1 / Y2 / Y3				
Frequency Bands		1695-2690 MHz				
		1695-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	at Mid Tilt	16.8 dBi	17.1 dBi	17.4 dBi	17.6 dBi	17.4 dBi
	Over All Tilts	16.6 ± 0.6 dBi	16.9 ± 0.5 dBi	17.2 ± 0.5 dBi	17.4 ± 0.6 dBi	17.2 ± 0.6 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Return Loss		> 14 dB				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		66° ± 6.5°	66° ± 6.1°	62° ± 6.1°	60° ± 5.1°	60° ± 5.9°
Vertical Beamwidth (-3 dB)		6.6° ± 0.6°	6.1° ± 0.5°	5.7° ± 0.5°	5.0° ± 0.4°	4.8° ± 0.6°
Electrical Downtilt Range		2-12°				
Cross-Polar Isolation		> 25 dB				
Interband Isolation		> 25 dB				
Port-to-Port Isolation		> 25 dB				
Upper Sidelobe Suppresson	First Upper Lobe	> 16 dB	> 16 dB	> 16 dB	> 16 dB	> 16 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 Ratio	Main Direction (0°)	> 16 dB	> 16 dB	> 16 dB	> 17 dB	> 17 dB
	Sector Edges (±60°)	> 7 dB	> 8 dB	> 8 dB	> 6 dB	> 4 dB
Lightening Protection		DC Ground				
Maximum Power (Per Port)		250 W (at 50° C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -153 dBc				

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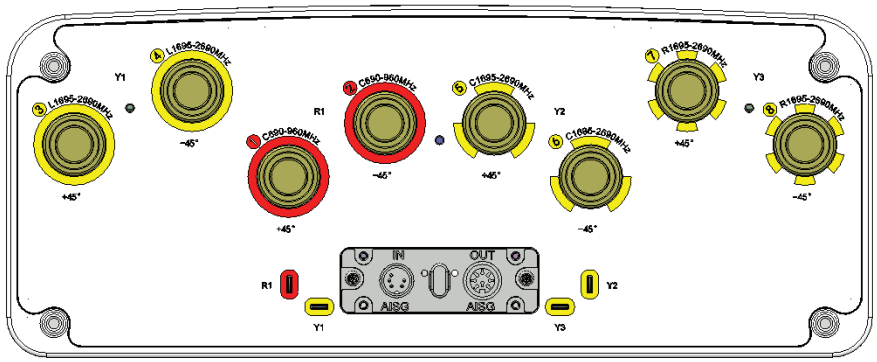
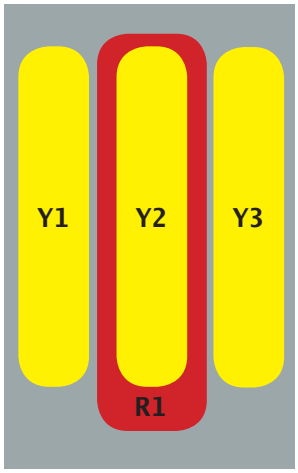
4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1998 mm

INTEGRATED RET PROPERTIES	
Protocols	Compliant With AISGV2.0 And 3GPP
Supply Voltage, VDC	10–30DC
Adjustment Time(Full Range)	≤ 90 s (typical, depending on Antenna type)
Power Consumption	< 2W (standby); < 10W (motor actived)
Angular Accuracy for shaft turn	Angular Accuracy ≤ 0.5 deg
Hardware Interface	RS485 And Power
Safety Standard	Compliant to EN 60950/UL 60950/ RoHs (Restriction of Hazardous Substances), CE
Remote control	Can management from OMC, BTS/NodeB
Lifetime/Adjustment Cycles	> 20000
Torque Max.	≥ 160mN.m
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8kA
Daisy chaining method	Ready for daisy-chaining
Housing Material	Aluminum
Housing Color	Silvery white
Mounting	Directly onto Antenna
Connectors	2 x 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.
Operating Temperature range	-40°C to +70°C





ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	690-960	1-2	4.3-10 Female
	Y1	1695-2690	5-6	4.3-10 Female
	Y2	1695-2690	5-6	4.3-10 Female
	Y3	1695-2690	7-8	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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4-Band, 8-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1998 mm

MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)		1998 x 398 x 158 mm (78.7 x 15.7 x 6.2 in)
Weight (excluding mounting accessory)		26.5 kg (58.4 lbs)
Weight with mounting accessory		31 kg (68.3 lbs)
Radome Material		UPVC or Fiberglass
Operating Temperature		-40˚C to +60˚C
Maximum Wind Speed		200 km/h
Wind Loads (at 150 km/h)	Frontal	735 N (165.2 lbf)
	Rear	820 N (184.3 lbf)
	Lateral	360 N (80.9 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
2.198 x 0.493 x 0.278 m
(86.5 x 19.4 x 10.9 in)