Amphenol ANTENNA SOLUTIONS

10-Port Antenna

698-960 | 1710-2690 | 1710-2690 | 1710-2690 | 1710-2690 MHz

65° | 35° | 2767 mm

6648318NG

10-Port, 35°, 65°, XPOL, Panel Antenna, Variable Tilt, 2767 mm

- Penta band antenna, Dual polarisation, 10 connectors
- Independent, continuously adjustable tilt on each band 2-10° / 2-10° / 2-10° / 2-10° / 2-10°
- RET version, 3GPP/AISG2.0 with five integrated RCU

ACCESS PORT DESCRIPTION (CONNECTORS)					
The antenna has 10 colour-coded connectors located at the bottom face.					
Frequency Designation	R1	Y1	Y2	Y3	Y4
Frequency Range	698-960 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol	Xpol	Xpol	Xpol
Horizontal Beamwidth	65°	35°	35°	35°	35°
Electrical Downtilt Range	2-10°	2-10°	2-10°	2-10°	2-10°
Connector Type	(2x) 4.3/10 Female	(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		698-960 MHz		
		698-790 MHz	824-880 MHz	880-960 MHz
Gain	at Mid Tilt	15.5 dBi	16.0 dBi	16.0 dBi
	Over All Tilts	15.5 ± 0.5 dBi	16.0 ± 0.5 dBi	16.0 ± 0.5 dBi
Input Impedance		50 Ω		
VSWR		< 1.5		
Return loss		> 14 dB		
Polarisation		± 45°		
Horizontal Beamwidth (-3 dB)		69° ± 5°	66° ± 5°	62° ± 5°
Vertical Beamwidth (-3 dB)		8.6° ± 1.0°	7.6° ± 0.7°	7.0° ± 0.5°
Electrical Downtilt Range		2-10°		
Intra-Band Isolation		≥ 25 dB		
Inter-Band Isolation		≥ 28 dB		
First Upper Sidelobe Suppression		≥ 16 dB	≥ 16 dB	≥ 16 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 22 dB	≥ 23 dB	≥ 24 dB
Cross Polar Discrimination at Boresight		≥ 17 dB	≥ 17 dB	≥ 17 dB
Maximum Average Power Per Port (at 50° C ambient temperature)		250 W (300 at peak)		
Intermodulation 3rd Order, 2 x 43 dBm carrier		<-150 dBc		
Grounding		DC Ground		

Standard values based on NGMN-P-BASTA version 12.0 recommendation.

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ELECTRICAL CHARACTERISTICS		Y1, Y2, Y3, Y4			
Frequency Bands		1710-2690 MHz			
		1710-1880 MHz	1920-2170 MHz	2300-2400 MHz	2500-2690 MHz
Gain	at Mid Tilt	17.7 dBi	18.2 dBi	18.8 dBi	18.7 dBi
	Over All Tilts	17.6 ± 0.6 dBi	18.1 ± 0.6 dBi	18.7 ± 0.6 dBi	18.6 ± 0.6 dBi
Input Impedance		50 Ω			
VSWR		< 1.5			
Return loss		> 14 dB			
Polarisation		± 45°			
Horizontal Beamwidth		43° ± 5°	39° ± 3°	33° ± 3°	30° ± 3°
Azimuth Beam centers		(±30°) ± 3°	(±30°) ± 3°	(±30°) ± 3°	(±30°) ± 3°
Vertical Beamwidth		8.0° ± 0.5°	7.2° ± 0.5°	6.2° ± 0.5°	5.7° ± 0.7°
Electrical Downtilt Range		2-10°			
Intra-Band Isolation		Same beam: ≥ 25 dB			
Beam to beam Isolation		≥ 25 dB			
Inter-Band Isolation		≥ 28 dB			
First Upper Sidelobe Suppression		≥ 16 dB	≥ 16 dB	≥ 16 dB	≥ 16 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 25 dB	≥ 26 dB	≥ 26 dB	≥ 26 dB
Cross Polar Discrimination at Boresight		≥ 15 dB	≥ 15 dB	≥ 15 dB	≥ 15 dB
Maximum Average Power Per Port (at 50° C ambient temperature)		200 W			
Intermodulation 3rd Order, 2 x 43 dBm carrier		< -150 dBc			
Grounding		DC Ground			

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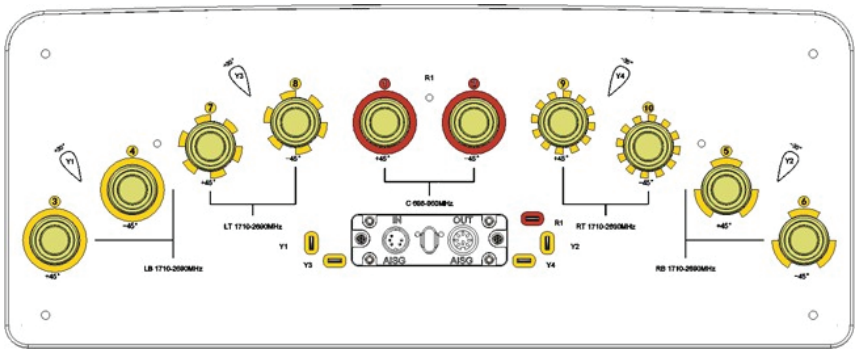

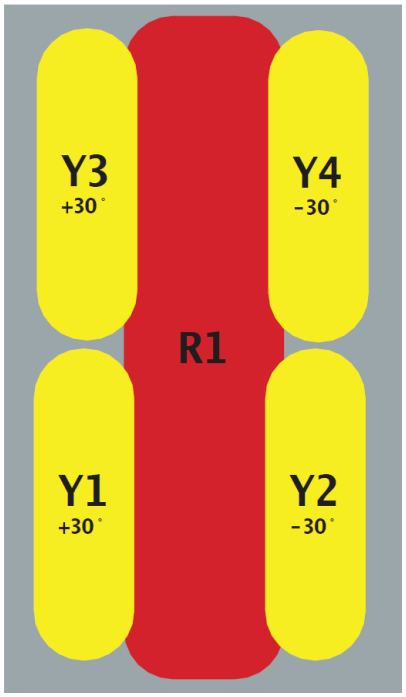

ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	698-960	1-2	4.3/10 Female
	Y1	1710-2690	3-4	4.3/10 Female
	Y2	1710-2690	5-6	4.3/10 Female
	Y3	1710-2690	7-8	4.3/10 Female
	Y4	1710-2690	9-10	4.3/10 Female

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

INTEGRATED RET PROPERTIES	
Protocols	Compliant With AISGV2.0 And 3GPP
Power Supply	10-30 VDC
Power Consumption	< 2 W (Idle), < 10 W (In Motion)
Safety Standard	Compliant to EN 60950/UL 60950/RoHS, CE
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, Line to Ground 8/20 µs @ 6 kA ≥ ± 5 Repetitions, Line to Ground 8/20 µs @ 5 kA ≥ ± 5 Repetitions
Connectors	2 x 8 Pin Circle Connector According to IEC 60130-9 and AISG Daisy Chain In: Male; Daisy Chain Out: Female Pin3: RS485B; Pin5: RS485A; Pin6: 10-30 V; Pin7: DC Return Female Connector: 8 PINs; Male Connector: 4 PINs

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MECHANICAL CHARACTERISTICS		
Dimensions (Height x Width x Depth)		2767 x 497 x 197 mm (102.2 x 19.6 x 7.8 in)
Antenna Weight	Antenna Only	43.5 kg (95.9 lbs)
	Antenna with Clamps	52.5 kg (115.7 lbs)
Radome Material		Fiberglass
Connector Position		Bottom
Connector Type		(10x) 4.3/10 Female
Electrical Tilt Control		Integrated RET, Each Band Individually Adjustable
Maximum Wind Speed		200 km/h (124.3 mph)
Wind Load at 150 km/h	Frontal	1270 N (285.5 lbf)
	Rear	1420 N (319.2 lbf)
	Lateral	620 N (139.4 lbf)
Operating/Storage 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-Ø125 mm (Ø2.0-Ø4.9 in)	0-8°

PACKAGING

Carton Box
2.947 x 0.592 x 0.317 m
(116.0 x 23.3 x 12.5 in)