

5981308NGv

6-Band, 12-Port, 65°, XPOL, Panel Sector Antenna, Variable Tilt, 2750 mm

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

ACCESS PORT DESCRIPTION (CONNECTORS)						
The antenna has 12 colour-coded connectors located at the bottom face.						
Frequency Designation	R1	R2	Y1	Y2	Y3	Y4
Frequency Range	698-960 MHz	698-960 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol	Xpol	Xpol	Xpol	Xpol
Horizontal Beamwidth	65°	65°	65°	65°	65°	65°
Electrical Downtilt Range	2-12°	2-12°	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	(2x) 4.3-10 Female	(2x) 4.3-10 Female

ELECTRICAL CHARACTERISTICS		R1, R2			
Frequency Bands		698-960 MHz			
		698-806 MHz	790-894 MHz	880-960 MHz	
Gain	at Mid Tilt	15.6 dBi	16.3 dBi	16.7 dBi	
	Over All Tilts	15.5 ± 0.4 dBi	16.1 ± 0.5 dBi	16.5 ± 0.4 dBi	
Input Impedance		50 Ω			
VSWR		< 1.5			
Return Loss		> 14 dB			
Polarisation		± 45°			
Horizontal Beamwidth		65° ± 5°	60° ± 5.5°	62° ± 6°	
Vertical Beamwidth		8.1° ± 1.3°	7.8° ± 1.1°	7.0° ± 0.6°	
Electrical Downtilt Range		2-12°			
Cross-Polar Isolation		> 28 dB			
Port-To-Port Isolation		> 26 dB (R1/R2), > 28 dB (R1/Y1,Y2,Y3,Y4)			
Upper Sidelobe Suppression	First Upper lobe	> 16 dB	> 16 dB	> 16 dB	
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	
Front-to-Back Ratio Co-Pol, ± 30°		> 22 dB	> 24 dB	> 25 dB	
Cross Polar Ratio	Main Direction (0°)	> 17 dB	> 18 dB	> 18 dB	
	Sector Edges (±60°)	> 7.0 dB	> 8.0 dB	> 6.5 dB	
Maximum Power (Per Port)		350 W (at 50° C ambient temperature)			
Grounding		DC Ground			
Intermodulation		< -150 dBc			

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



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ELECTRICAL CHARACTERISTICS		Y1 / Y3				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	16.9 dBi	17.1 dBi	17.4 dBi	17.7 dBi	17.5 dBi
	Over All Tilts	16.6 ± 0.6 dBi	16.8 ± 0.5 dBi	17.1 ± 0.6 dBi	17.4 ± 0.6 dBi	17.2 ± 0.7 dBi
Input Impedance		50 Ω				
VSWR		< 1.5				
Return Loss		> 14 dB				
Polarisation		± 45°				
Horizontal Beamwidth (-3 dB)		60° ± 5°	65° ± 6.5°	66° ± 6.5°	59° ± 6.0°	61° ± 5°
Vertical Beamwidth (-3 dB)		7.0° ± 0.5°	6.8° ± 0.4°	6.0° ± 0.5°	5.7° ± 0.5°	5.0° ± 0.5°
Electrical Downtilt Range		2-12°				
Cross-Polar Isolation		> 28 dB				
Interband Isolation		> 26 dB				
Port-To-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	First Upper lobe	> 16 dB	> 16 dB	> 16 dB	> 15 dB	> 15 dB
	Peak to 20°	>14 dB	>14 dB	>14 dB	>14 dB	>14 dB
Front-to-Back Ratio Co-Pol, ± 30°		≥ 25 dB	≥ 25 dB	> 25 dB	≥ 26 dB	≥ 26 dB
Cross Polar Discrimination	at Boresight	> 16 dB	> 16 dB	> 17 dB	> 18 dB	> 18 dB
	Over Sector	> 7.0 dB	> 8.0 dB	> 8.0 dB	> 6.5 dB	> 4.5 dB
Maximum Power (Per Port)		250 W (at 50°C ambient temperature)				
Intermodulation 3rd (2x43 dBm Carrier)		< -150 dBc				
Grounding		DC Ground				

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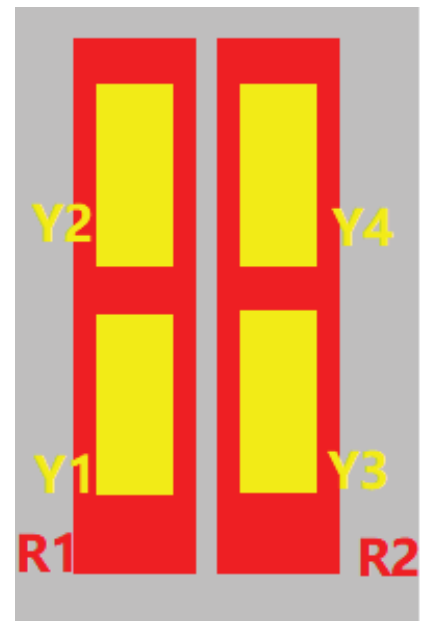
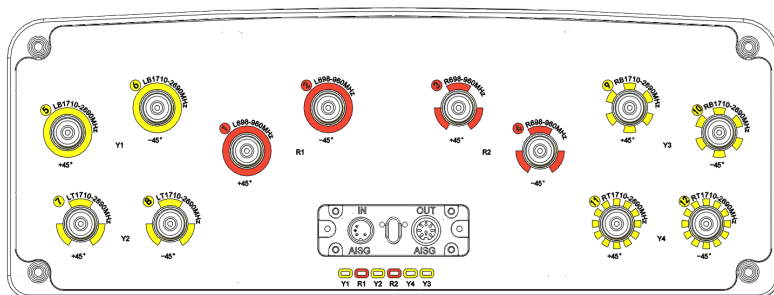
ELECTRICAL CHARACTERISTICS		Y2 / Y4				
Frequency Bands		1710-2690 MHz				
		1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2490-2690 MHz
Gain	At Mid Tilt	16.7 dBi	17.0 dBi	17.3 dBi	17.5 dBi	17.3 dBi
	Over All Tilts	16.5 ± 0.5 dBi	16.7 ± 0.6 dBi	17.0 ± 0.5 dBi	17.2 ± 0.6 dBi	17.0 ± 0.5 dBi
Input Impedance		50 Ω				
VSWR		< 1.5				
Return Loss		> 14 dB				
Polarisation		± 45°				
Horizontal Beamwidth (-3 dB)		60° ± 5°	65° ± 6.5°	65° ± 6.5°	60° ± 6.0°	61° ± 5°
Vertical Beamwidth (-3 dB)		7.0° ± 0.5°	6.8° ± 0.4°	6.0° ± 0.5°	5.7° ± 0.5°	5.0° ± 0.5°
Electrical Downtilt Range		2-12°				
Cross-Polar Isolation		> 28 dB				
Interband Isolation		> 26 dB				
Port-To-Port Isolation		> 28 dB				
Upper Sidelobe Suppression	First Upper lobe	> 16 dB	> 16 dB	> 16 dB	> 15 dB	> 15 dB
	Peak to 20°	>14 dB	>14 dB	>14 dB	>14 dB	>14 dB
Front-to-Back Ratio Co-Pol, ± 30°		≥ 25 dB	≥ 25 dB	> 25 dB	≥ 26 dB	≥ 26 dB
Cross Polar Discrimination	at Boresight	> 16 dB	> 16 dB	> 17 dB	> 18 dB	> 18 dB
	Over Sector	> 7.0 dB	> 8.0 dB	> 8.0 dB	> 6.5 dB	> 4.5 dB
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INTEGRATED RET PROPERTIES	
Protocols	Compliant With AISGV2.0 And 3GPP
Supply Voltage, VDC	10–30DC
Power Consumption	<2W (standby); < 10W (motor active)
Safety Standard	Compliant to EN 60950/UL 60950/ RoHs (Restriction of Hazardous Substances), CE
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, Line to Ground 8/20 us @ 6kA ≥ ±5 Repetitions Line to line , 8/20 us @ 5kA ≥ ±5 Repetitions
Connectors	2 x 8 Pins Connector According To IEC60130-9 AND AISG 1 x Daisy Chain In : Male 1 x Daisy Chain Out : Female Pin3:RS485B; Pin5:RS485A; Pin6:10~30V; Pin7: DC return Female connector: 4 PINs ,Male connector: 4 PINs



ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	698-960	1-2	4.3-10 Female
	R2	698-960	3-4	4.3-10 Female
	Y1	1710-2690	5-6	4.3-10 Female
	Y2	1710-2690	7-8	4.3-10 Female
	Y3	1710-2690	9-10	4.3-10 Female
	Y4	1710-2690	11-12	4.3-10 Female

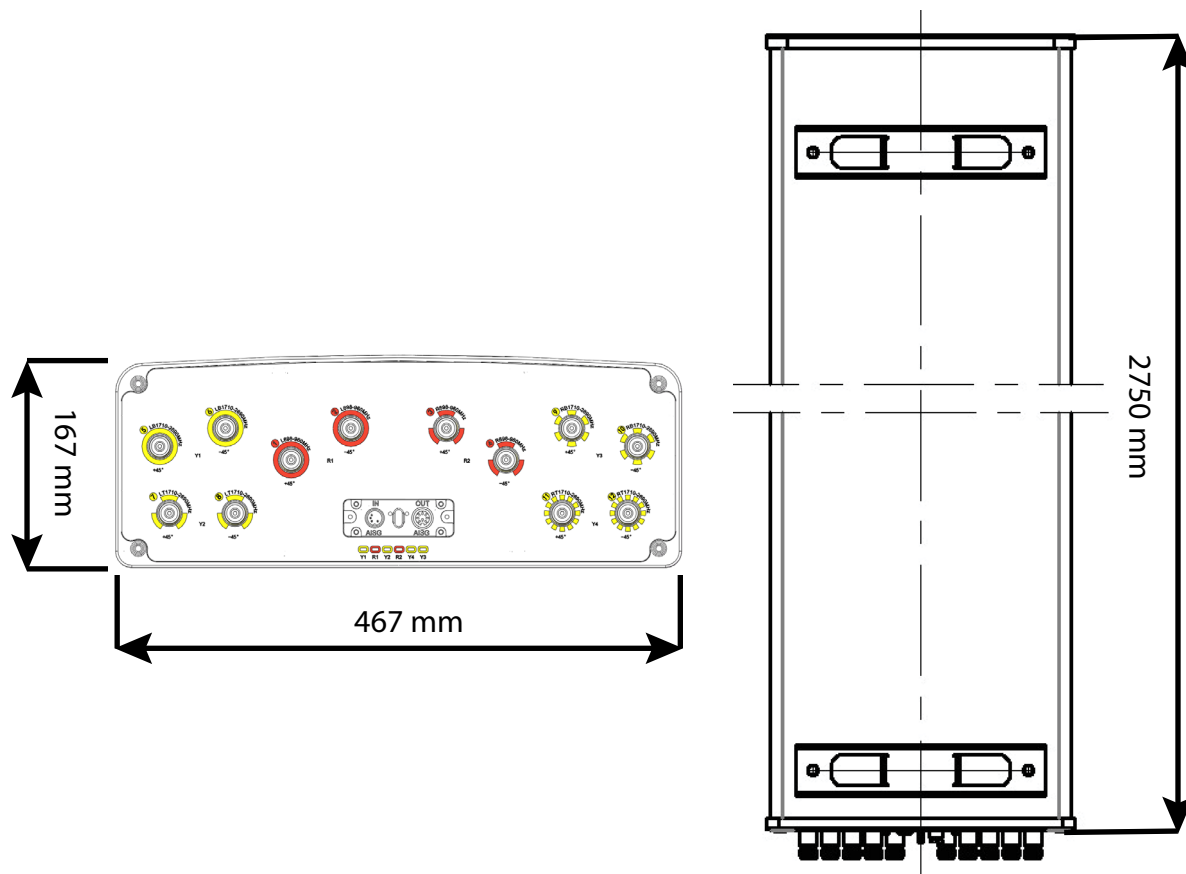
Diagram shown at right depicts the view from the front of the antenna.
The illustration is not shown to scale.

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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MECHANICAL CHARACTERISTICS		PACKAGING
Dimensions (Height x Width x Depth)	2750 x 467 x 167 mm (108.3 x 18.3 x 6.5 in)	Carton Box 2.930 x 0.542 x 0.277 m (115.4 x 21.3 x 10.9 in)
Weight (excluding mounting accessory)	39 kg (85.9 lbs)	
Weight with mounting accessory	44.5 kg (98.1 lbs)	
Radome Material	Fiberglass (UV Resistant), Light grey	
Radiator Material	Low loss circuit board	
Reflector Material	Aluminum	
Maximum Wind Speed	200 km/h (124.3 mph)	
Operating Temperature	-40° to +55° C (-40° to +131° F)	
Wind Load at 150 km/h (93.2 mph)	Frontal	1190 N (267.5 lbf)
	Rear	1330 N (299.0 lbf)
	Lateral	440 N (98.9 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 (Ø2.0-Ø4.9 mm)	0-10°



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