

6177108NGH

2-Band | 4-Port | XPOL | Panel Antenna | Variable Tilt | 1377 mm

- Twin band antenna, dual polarisation, 4 connectors
- Independent tilt on each band 2-12° / 2-12°
- RET version 3GPP, AISGv2.0
- 2 Integrated RET Units (field replaceable)

ACCESS PORT DESCRIPTION (CONNECTORS)

This antenna has 4 colour-coded connectors located at the bottom face.

Frequency Designation	Y1	Y2
Frequency Range	1710-2690 MHz	1710-2690 MHz
Polarisation	Xpol	Xpol
Horizontal Beamwidth	65°	65°
Electrical Downtilt Range	2-12°	2-12°
Connector Type	(2x) 4.3-10 Female or 7/16-DIN Female	(2x) 4.3-10 Female or 7/16-DIN Female

ELECTRICAL CHARACTERISTICS

		Y1				
		1710-2690 MHz				
Frequency Bands		1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain	At Mid Tilt	17.2 dBi	17.8 dBi	18.0 dBi	18.1 dBi	18.1 dBi
	Over All Tilts	17.2 ± 0.6 dBi	17.8 ± 0.5 dBi	17.7 ± 0.1 dBi	18.0 ± 0.4 dBi	18.1 ± 0.5 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Return loss		> 14 dB				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 3.8°	65° ± 4.9°	64° ± 4.5°	64.7° ± 1.2°	60° ± 5.1°
Vertical Beamwidth (-3 dB)		6.9° ± 0.6°	6.4° ± 0.5°	6.3° ± 0.3°	5.3° ± 0.2°	4.9° ± 0.3°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 28 dB				
Port-to-Port Isolation		> 25 dB				
Interband Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 17 dB	> 16 dB	> 19 dB	> 19 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 14 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 25 dB	≥ 26 dB	≥ 26 dB	≥ 25 dB	≥ 26 dB
Horizontal Beam Squint		< 5°	< 5°	< 5°	< 5°	< 5°
Horizontal Beam Port-to-Port Tracking		< 1.8 dB	< 2.0 dB	< 2.0 dB	< 2.0 dB	< 2.3 dB
Tilt Accuracy		< 0.7°	< 0.7°	< 0.7°	< 0.7°	< 0.7°
Cross Polar Discrimination	Main Direction	> 20 dB	> 22 dB	> 20.8 dB	> 19 dB	> 20 dB
	Sector Edges	> 12 dB	> 12 dB	> 10 dB	> 9 dB	> 9 dB
Maximum Power (Per Port)		250 W				
Intermodulation 3rd Order (2x43 dBm Carrier)		< -153 dBc				
Grounding		DC Ground				

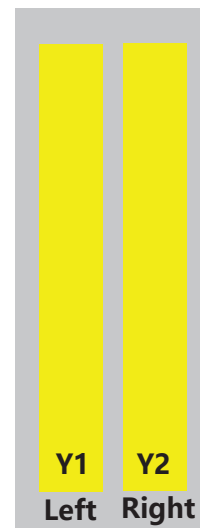
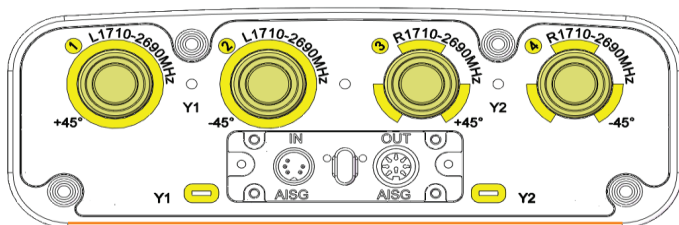


Several patents pending regarding this product. Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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ELECTRICAL CHARACTERISTICS		Y2				
Frequency Bands		1710-2690 MHz				
		1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain	At Mid Tilt	17.2 dBi	17.8 dBi	17.7 dBi	18.1 dBi	18.1 dBi
	Over All Tilts	17.2 ± 0.6 dBi	17.8 ± 0.5 dBi	17.7 ± 0.5 dBi	18.0 ± 0.4 dBi	18.1 ± 0.5 dBi
Input Impedance		50Ω				
VSWR		< 1.5				
Return loss		> 14 dB				
Polarisation		±45°				
Horizontal Beamwidth (-3 dB)		68° ± 3.8°	65° ± 4.9°	64° ± 4.5°	62° ± 5.2°	60° ± 5.1°
Vertical Beamwidth (-3 dB)		6.9° ± 0.6°	6.3° ± 0.5°	6.2° ± 0.3°	5.4° ± 0.3°	4.9° ± 0.3°
Electrical Downtilt Range		2-12°				
Cross Polar Isolation		> 28 dB				
Port-to-Port Isolation		> 28 dB				
Interband Isolation		> 28 dB				
Upper Sidelobe Suppression	Typical	> 16 dB	> 17 dB	> 17 dB	> 18 dB	> 18 dB
	Peak to 20°	> 15 dB	> 15 dB	> 15 dB	> 15 dB	> 15 dB
Front-to-Back Ratio (@ 180° ± 30°)		≥ 25 dB	≥ 26 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB
Horizontal Beam Squint		< 5°	< 5°	< 5°	< 5°	< 5°
Horizontal Beam Port-to-Port Tracking		< 1.9 dB	< 2.0 dB	< 2.0 dB	< 2.1 dB	< 2.4 dB
Tilt Accuracy		< 0.7°	< 0.5°	< 0.4°	< 0.4°	< 0.6°
Cross Polar Discrimination	Main Direction	> 21 dB	> 20 dB	> 20 dB	> 18 dB	> 19 dB
	Sector Edges	> 11 dB	> 11 dB	> 9.5 dB	> 9 dB	> 9 dB
Maximum Power (Per Port)		250 W				
Intermodulation 3rd Order (2x43 dBm Carrier)		< -153 dBc				
Grounding		DC Ground				



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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	< 1W (Idle); < 10 W (In Motion)
Accuracy	≤ 0.5°
Hardware Interface	Pin3: RS485B; Pin5: RS485A; Pin6: 10-30V; Pin7: DC Return
Safety Standard	Compliant to EN 60950/UL 60950/ RoHS, CE
Adjustment Cycles	> 10,000
Torque Max	≥ 160 mN.m
Protection Class	IP65
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA IEC61312-1 B Protection against lightning electromagnetic impulse 10/350 μs, 200 @ 0.6kA
Connectors	(2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG Daisy Chain In: Male; Daisy Chain Out: Female

MECHANICAL CHARACTERISTICS		PACKAGING
Dimensions (Height x Width x Depth)	1377 x 257 x 87 mm (54.2 x 10.1 x 3.4 in)	Carton Box 1.577 x 0.357 x 0.207 m (62.0 x 14.0 x 8.1 in)
Weight (excluding mounting accessory)	12 kg (26.4 lbs)	
Weight with brackets	15 kg (33.0 lbs)	
Radome Material	UPVC	
Maximum Wind Speed	200 km/h (124.3 mph)	
Wind Load at 150 km/h	Front	
	Lateral	500 N (112.4 lbf)
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 mm)	0-16°

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