

## 6890100

6890100A 6890100G

XXXX-Pol | VET Panel | 65° | 17.5 / 17.3 / 17.3 / 18.6 dBi

## FEATURES:

- Quad Band Antenna, Dual Polarisation, 8 connectors
- Independent Tilt on each band 0-10° / 0-12° / 0-12° / 0-10°
- UltraLine platform with multi-array capability
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Single RET module to control all tilt angles, fully inserted inside the antenna (field replaceable)



Model Number Options: **6890100** Manual Electrical Tilt Antenna  
**6890100A** Remote Electrical Tilt Antenna (AISG1.1)  
**6890100G** Remote Electrical Tilt Antenna (3GPP/AISG2.0)

## Access Ports Description (Connectors)

The antenna has 8 connectors located at the bottom face and marked with coloured rings. See photo next page.

Access Ports Description (Connectors)		790-960 MHz ports		RED rings	2 x 7-16 DIN Female Long Neck			
Wide Band (Top Array)		1710-2170 MHz ports		WHITE rings	2 x 7-16 DIN Female Long Neck			
Wide Band (Bottom Array)		1710-2170 MHz ports		BLUE rings	2 x 7-16 DIN Female Ultra Long Neck			
Ultra Wide Band		1710-2690 MHz ports		YELLOW rings	2 x 7-16 DIN Female Ultra Long Neck			
Electrical Characteristics		Low Band (Red)	High Wide Band (White & Blue)		High Ultra Wide Band (Yellow)			
Frequency Band (MHz)		790...880...960	1710...1880	1900...2170	1710...1880	1900...2170	2500...2690	
Gain (dBi)	Tilt 0°	16.5...17.0...17.5	16.5...16.9	16.9...17.3	17.6...17.9	17.9...18.4	18.3...18.6	
	Tilt 5°	16.5...17.0...17.5	16.4...16.7	16.7...17.2	17.5...17.7	17.7...18.2	18.0...18.2	
	Tilt 10°	16.4...16.9...17.4	16.3...16.5	16.5...17.0	17.5...17.6	17.6...18.0	17.7...17.8	
Input Impedance		50Ω		50Ω		50Ω		
VSWR		<1.5		<1.5		<1.5		
Polarisation		±45°		±45°		±45°		
Horizontal Beamwidth (-3 dB)		66° (±6°)	67° (±3°)	64° (±4°)	67° (±3°)	64° (±4°)	60° (±3°)	
Vertical Beamwidth (-3 dB)		7.3°	7.2°	6.7°	5.5°	5.0°	4.0°	
Electrical Downtilt Range		0-10°		0-12°		0-10°		
Isolation intraband		> 30 dB >28 dB T0-T2	> 30 dB >28 dB T0-T2		> 30 dB >28 dB T0-T2		> 30 dB >28 dB T0-T2	
Isolation Between Bands		>30 dB		>30 dB		>30 dB		
Upper Sidelobe Rejection (20° sector above main beam)		18 dB typ.		18 dB typ.		18 dB typ.		
Front to Back Ratio		> 30 dB		> 30 dB		> 30 dB		
Maximum Power (per port)		200 W		160 W		160 W		
Intermodulation 3rd order for 2 x 20 W carriers		< -110 dBm		< -110 dBm		< -110 dBm		

## Electrical Downtilt Control

Electrical downtilt can be controlled separately for Extended Low Band (Red), Wide Band (White), Wide Band (Blue) and Ultra Wide Band (Yellow). The four tilt indicators are covered by a removable transparent cap.

**Manual Control:** A coloured knob at the end of the tilt indicator allows change of the tilt without need for a tool. Knob colour is identical to connector colours as defined above. To access the knob, the cap is removed by turning it counter-clockwise. It is re-installed by opposite rotation.

**Remote Control:** The remote control of the electrical tilt is managed by a module (MDCU) totally inserted at the bottom of the antenna. One single module controls individually the tilt of each band (no need of daisy chain cables between the bands). For RET control, the transparent cap must be in place and locked. This module does not add any additional length at the bottom of the antenna. The tilt angle indicator stays always visible and the antenna still has manual tilt control (manual override).

RET Module Part Number (only one needed per antenna)	MDCU-A0000	for AISG1.1 protocol (one unit included in 6890100A)
	MDCU-G0000	for 3GPP/AISG2.0 protocol (one unit included in 6890100G)

## Environmental Characteristics

Operating Temperature Range	-40° to +60° C (-40° to +140° F)
Environmental	ETS 300 019
RoHS Compliant	Yes



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal 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 product may be made without notice.

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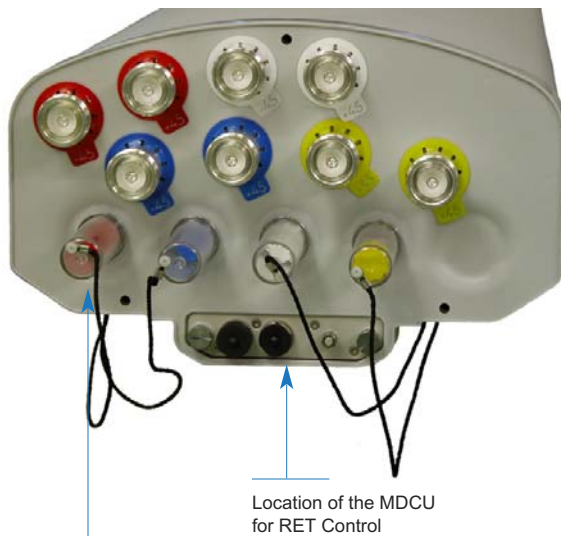
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Mechanical Characteristics			
Dimensions (Height x width x depth)	2700 x 305 x 160 mm	106.3 x 12.0 x 6.3 in	
Weight (excluding mounting accessory)	33 kg	72.8 lbs	
Shroud	Outdoor plastic, Grey RAL7035		
Wind Speed Operational	160 km/hr	100 mph	
Wind Speed Survival	200 km/hr	124 mph	
Wind load at 160 km/hr (100 mph)	Frontal: 850 N Lateral: 500 N Rear: 990 N	Frontal: 191 lbf	Lateral: 112 lbf Rear: 202 lbf
Packaging			
Carton Box Dimensions (Length x Width x Depth)	2.80 x 0.38 x 0.25 m	110.2 x 15.0 x 9.8 in	
Carton Volume	0.266 m <sup>3</sup>	9.4 ft <sup>3</sup>	
Carton Weight (including bracket)	44 kg	97 lbs	
Mounting Kit Options (These installation accessories must be ordered separately)			
Part Number	Description	Weight	
0900181/00	Brackets for pole 48 to 115 mm (1.9 to 4.5 in)	3.4 kg	7.5 lbs

This antenna cannot be mechanically downtilted.

### Antenna Bottom



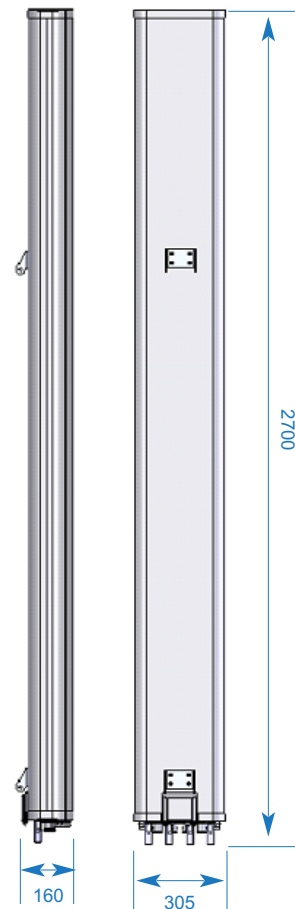
Tilt indicator covered by a transparent cap. Manual adjustment is accessed by removing the cap. Knob colour is same as connectors.

For RET control, the cap must be in place.

### Installation

Always install the antenna by its two (2) mounting points.  
Do not install the antenna with the connectors facing upward.

### Dimensions (in mm)



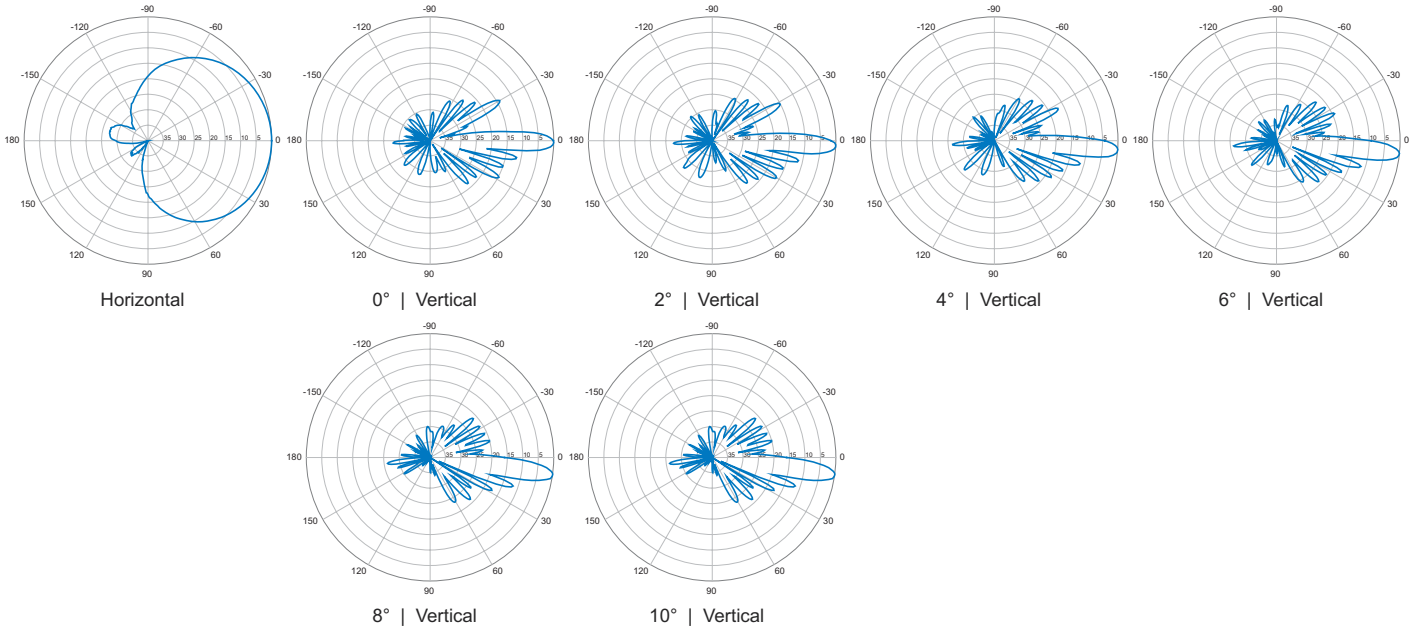
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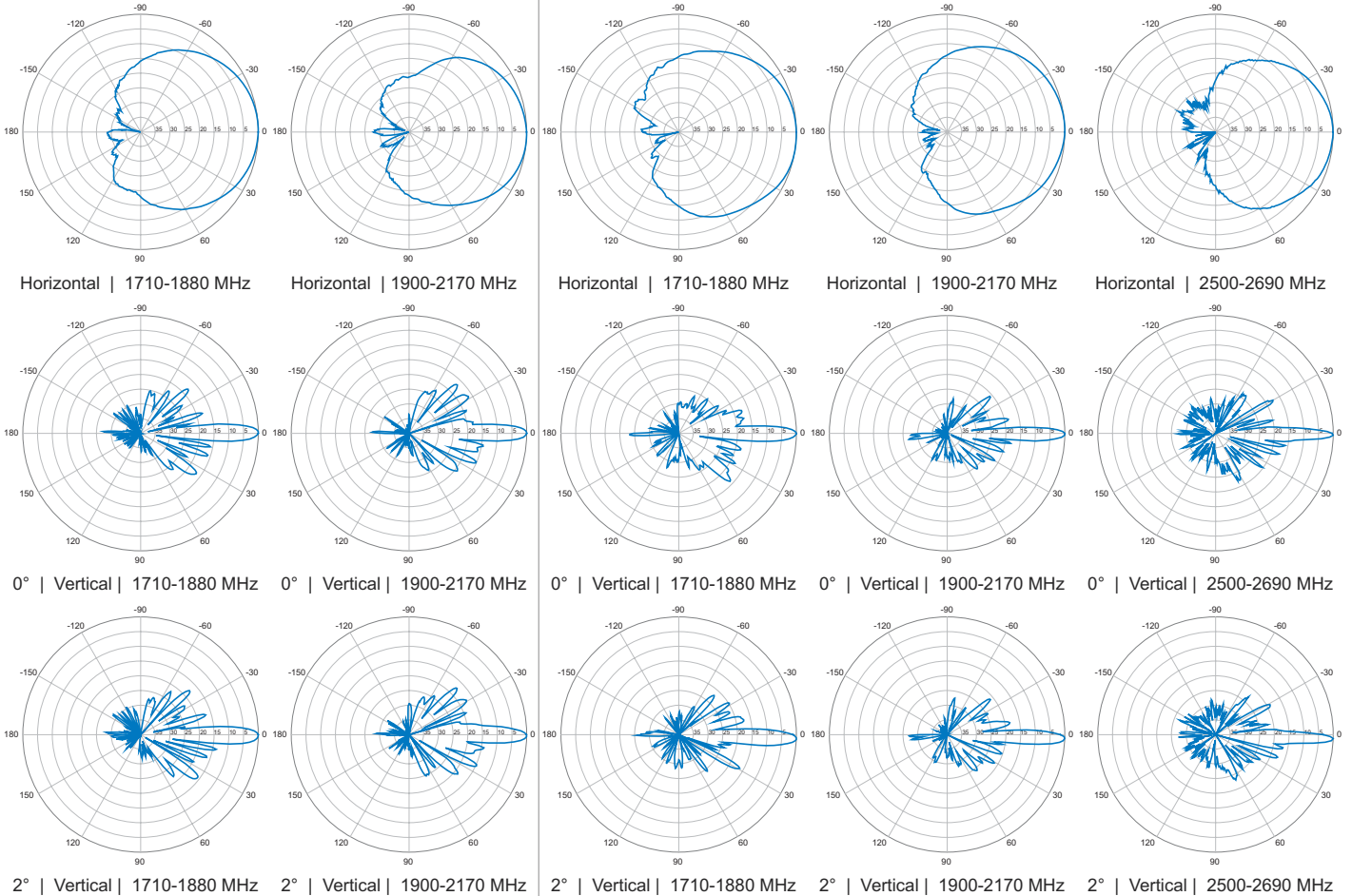
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790-960 MHz



1710-2170 MHz (Wide Band - White & Blue)

1710-2690 MHz (Ultra Wide Band - Yellow)



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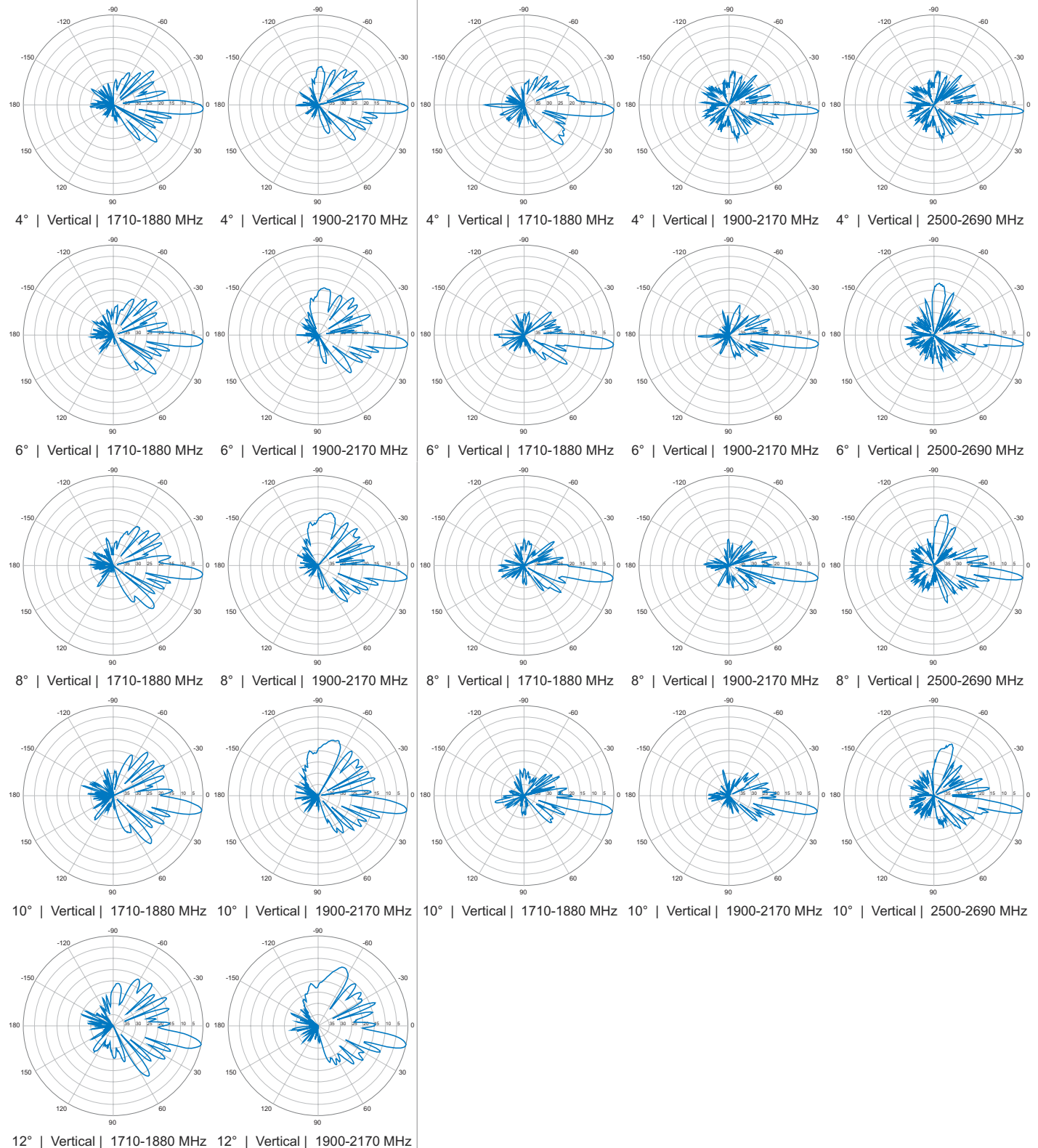
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1710-2170 MHz (Wide Band - White & Blue) Continued

1710-2690 MHz (Ultra Wide Band - Yellow) Continued



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