

6878200

6878200A 6878200G

XXX-Pol | VET Panel | 65° | 16.5 / 18.6 / 18.6 dBi

FEATURES:

- Tri-Band Antenna, dual polarisation, 6 connectors
- Independent tilt on each band 0-10° / 0-10° / 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: **6878200** Manual Electrical Tilt Antenna
6878200A Remote Electrical Tilt Antenna (AISG1.1)
6878200G Remote Electrical Tilt Antenna (3GPP/AISG2.0)

Access Ports Description (Connectors)

The antenna has 6 connectors located at the bottom face and marked with coloured rings. See photo next page.

Extended Low Band	790-960 MHz ports	RED rings		2 x 7-16 DIN Female Long Neck			
Wide Band	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)	Wide Band (Blue)		Ultra Wide Band (Yellow)			
Frequency Band (MHz)	790...880...960	1710...1880	1900...2170	1710...1880	1900...2170	2500...2690	
Gain (dBi)	Tilt 0°	15.5...16.0...16.5	17.8...18.2	18.2...18.6	17.6...17.9	17.9...18.4	18.3...18.6
	Tilt 5°	15.5...16.0...16.5	17.7...18.0	18.0...18.5	17.5...17.7	17.7...18.2	18.0...18.2
	Tilt 10°	15.4...15.9...16.4	17.6...17.8	17.8...18.3	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)	9°	5.7°	4.9°	5.5°	5.0°	4.0°	
Electrical Downtilt Range	0-10°	0-10°		0-10°			
Isolation intraband	> 30 dB	> 30 dB		> 30 dB			
	>28 dB T0-T2	>28 dB T0-T2		>28 dB T0-T2			
Isolation Between Bands	45 dB typ.	45 dB typ.		45 dB typ.			
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 (Blue) and Ultra Wide Band (Yellow). The three 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 6878200A)
	MDCU-G0000	for 3GPP/AISG2.0 protocol (one unit included in 6878200G)

Environmental Characteristics

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



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Mechanical Characteristics			
Dimensions (Height x width x depth)	2000 x 305 x 160 mm	78.7 x 12.0 x 6.3 in	
Weight (excluding mounting accessory)	28 kg	61.7 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: 630 N Lateral: 370 N Rear: 740 N	Frontal: 142 lbf	Lateral: 83 lbf Rear: 166 lbf
Packaging			
Carton Box Dimensions (Length x Width x Depth)	2.17 x 0.40 x 0.28 m	85.4 x 15.7 x 11.0 in	
Carton Volume	0.243 m ³	8.6 ft ³	
Carton Weight	33 kg	72.8 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



Location of the MDCU for RET Control

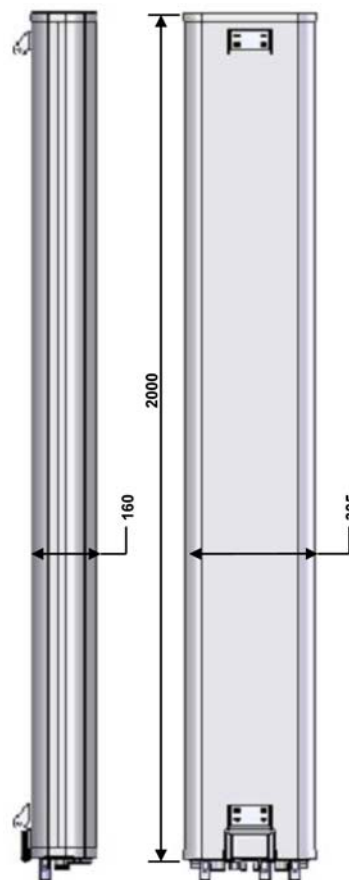
Tilt indicator covered by a transparent cap. Manual adjustment is accessed by removing the cap. Knob colour is same as connectors.

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)



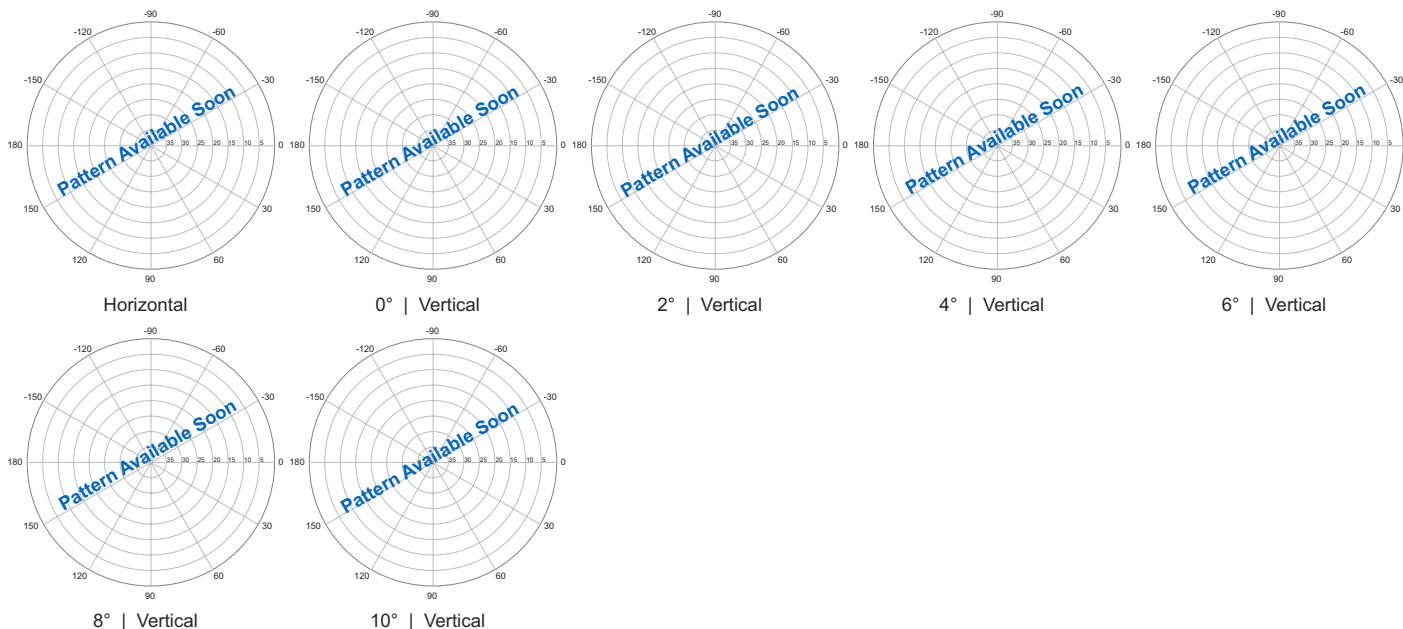
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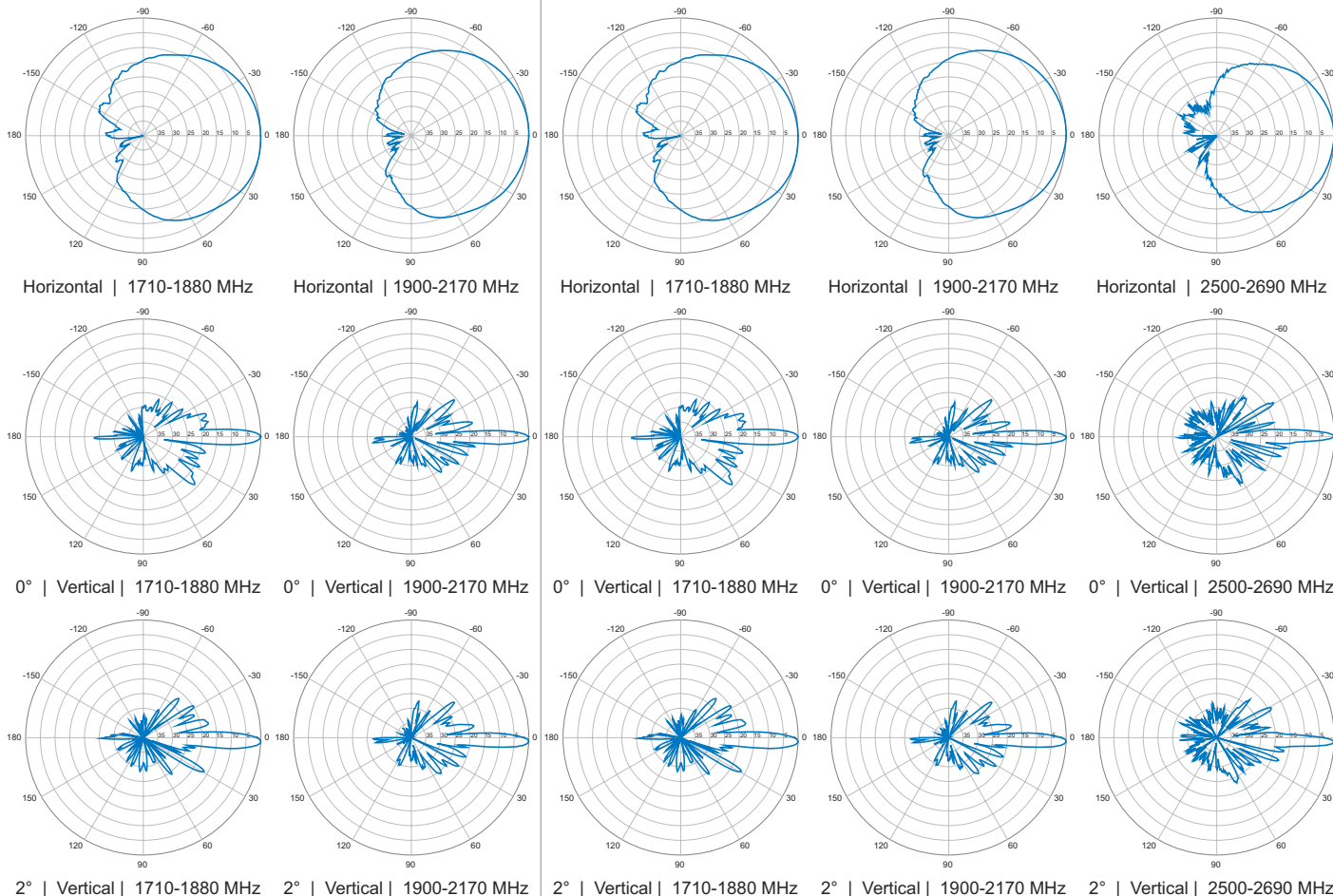
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790-960 MHz



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

1710-2690 MHz (Ultra Wide Band - Yellow)



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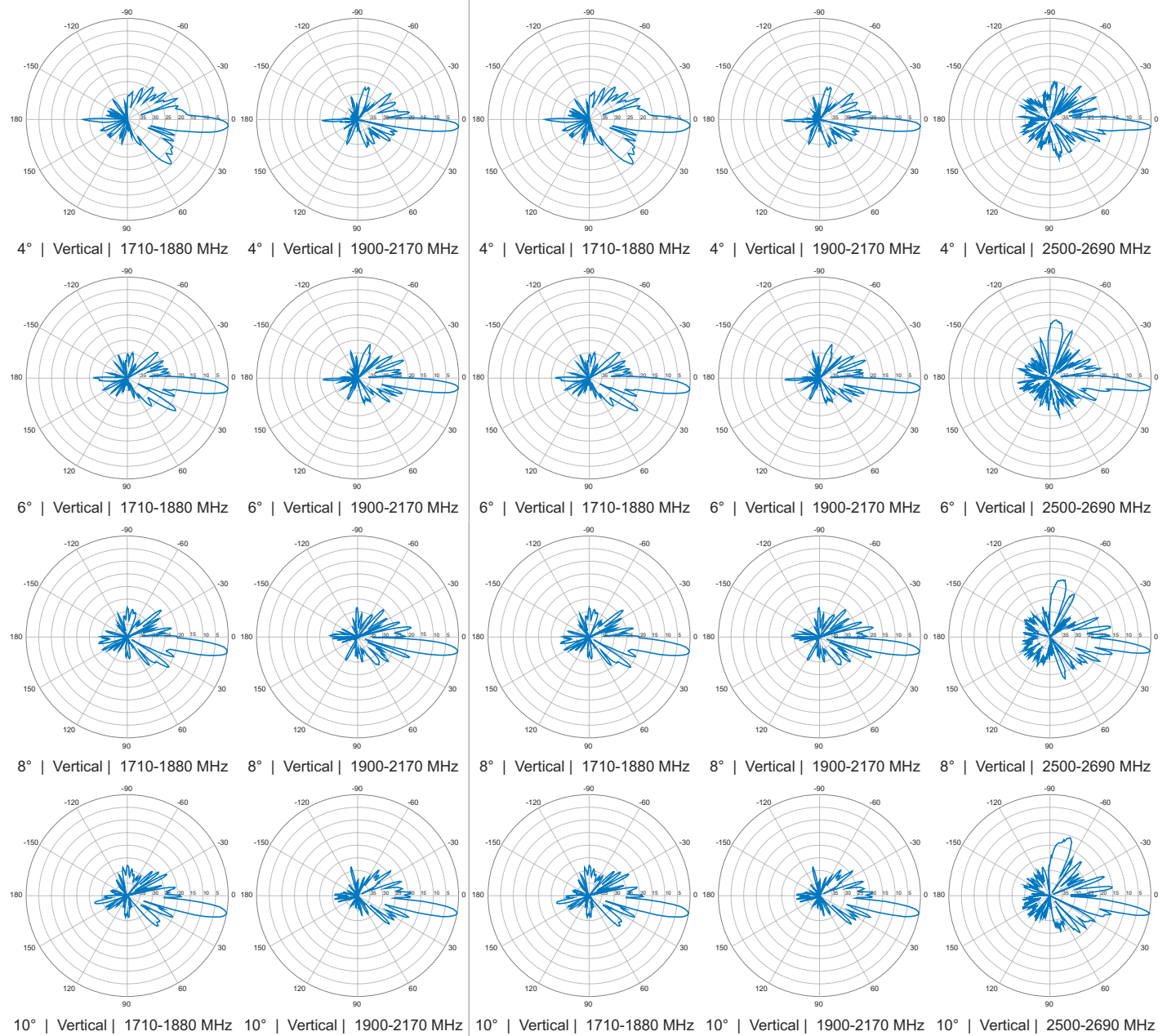
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1710-2170 MHz (Wide Band - White & Blue) Continued

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



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