

6880220-K03

Tri Band | Cylindrical Sector Antenna | XXX-Pol | 66° / 67° / 65° | 17.5 / 18.2 / 18.6 dBi | Variable Tilt

- Tri band, XXX-Pol, variable tilt, cylindrical base-mounted sector antenna with 6 connectors
- Independent tilt on each band 0-10° / 0-10° / 0-10°
- 350 mm diameter
- MET and RET versions, AISG v1.1 or 3GPP/AISG v2.0
- Service area under the antenna

CylLine Series

LTE 800 & 2600 Ready



Ordering Options	Model Number
Manual Electrical Tilt	6880220-K03
Remote Electrical Tilt AISG v1.1	6880220A-K03
Remote Electrical Tilt 3GPP/AISG v2.0	6880220G-K03

Other accessories are ordered separately.

Electrical Characteristics		790-960 MHz	1710-2170 MHz		1710-2690 MHz		
Frequency Bands (MHz)		790...880...960	1710...1880	1900...2170	1710...1880	1900...2170	2500...2690
Polarisation		±45°	±45°		±45°		
Horizontal Beamwidth		66° (±6°)	67° (±3°)	67° (±3°)	67° (±3°)	67° (±3°)	60° (±3°)
Vertical Beamwidth		7.3°	5.5°	5.5°	5.5°	5.5°	4.0°
Gain (dBi)	Tilt 0°	16.5...17.0...17.5	17.8...18.2	17.6...17.9	17.6...17.9	17.6...17.9	18.3...18.6
	Tilt 5°	16.5...17.0...17.5	17.7...18.0	17.5...17.7	17.5...17.7	17.5...17.7	18.0...18.2
	Tilt 10°	16.4...16.9...17.4	17.6...17.8	17.5...17.6	17.5...17.6	17.5...17.6	17.7...17.8
Electrical Downtilt		0-10°	0-10°		0-10°		
Impedance		50Ω	50Ω		50Ω		
VSWR		< 1.5	< 1.5		< 1.5		
Upper Sidelobe Suppression (typical)		18 dB	18 dB		18 dB		
Front-to-Back Ratio		> 30 dB	> 30 dB		> 30 dB		
Isolation Between Bands (inter-band, typical)		> 30 dB	> 30 dB		> 30 dB		
Isolation Between Ports (intra-band)		> 30 dB	> 30 dB		> 30 dB		
IM3 (2x20W carrier)		< -110 dBm	< -110 dBm		< -110 dBm		
Input Power		200 W	160 W		160 W		
Total Number of Connectors		Antenna has 6 connectors located at the bottom					
Connectors Per Band, Type, Location	790-960 MHz	2 Connectors / 7/16-DIN Female Long Neck / Bottom / Red Rings					
	1710-2170 MHz	2 Connectors / 7/16-DIN Female Long Neck / Bottom / Blue Rings					
	1710-2690 MHz	2 Connectors / 7/16-DIN Female Ultra Long Neck / Bottom / Yellow Rings					
Operating Temperature		-40° to +60° C (-40° to +140° F)					

Mechanical Characteristics

The CylLine™ system comes as an antenna and a service area section acting as an installation mast. The cylindrical shroud covers the whole antenna, excepting for the rear of the antenna where the aluminium structure profile is apparent. The service area, mounted under the antenna, is closed by a dismountable shroud in order to give access to the connectors and to the tilt indicators for tuning. A TMA may be installed in the service area.

It is mandatory to install the antenna with the provided service area.


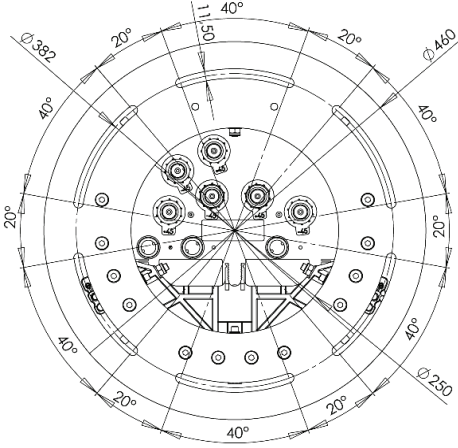
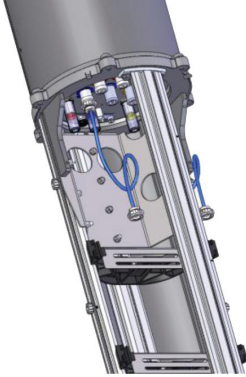
Shroud Material / Colour		Outdoor Plastic, Grey RAL7035			
Dimensions (Height x Diameter)		3724 x Ø350 mm		146.6 x Ø13.8 in	
Weight	Antenna	64 kg	141.1 lbs		
	Service Area	37 kg	81.6 lbs		
	Total	101 kg	222.7 lbs		
Operational Wind Speed		160 km/hr	100 mph		
Survival Wind Speed		200 km/hr	124 mph		
Wind Loads (160 km/hr or 100 mph)		1160 N	261 lbf		



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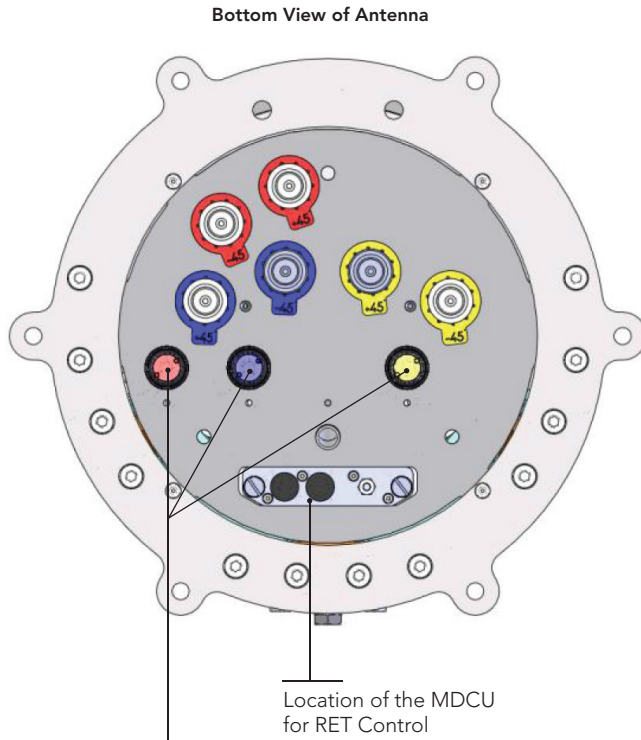
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Environmental Characteristics	
Environmental	ETS 300 019
Electrical Downtilt Control	
Electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s).	
Manual Electrical Tilt (MET) Control	A colored knob at the end of the tilt indicator allows change of the tilt without need of a tool. The knob color is identical to the corresponding connector ring color. To access the knob, remove the cap by turning it counter-clockwise. It is re-installed by opposite rotation. Do not remove the transparent cap(s) from the antenna.
Remote Electrical Tilt (RET) 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). This module does not add any additional length at the bottom of the antenna. For RET control, the transparent cap must be in place and locked. The tilt angle indicator always remains visible and the antenna still has manual tilt control (manual override). An antenna ordered in a RET version is delivered fitted with its factory preset MDCU module operational with no further action needed.
RET Module	The RET module is factory installed and does not need to be ordered separately. Part Number for AISG v1.1 protocol: MDCU-A0000 One unit installed in 6880220A-K03 Part Number for 3GPP/AISG v2.0 protocol: MDCU-G0000 One unit installed in 6880220G-K03
Important Installation Instructions	 <p>In order to operate RET control, the transparent caps covering the tilt adjustment indicators must be engaged and locked. Do not cut them from the antenna.</p> <p>Do not install the antenna with the connectors facing upward.</p>
List of Parts	
Parts Supply Includes	One antenna: 6880220, or 6880220A, or 6880220G One service area, length 1m All screws, nuts and washers for assembly
Mounting	
<p>The flange at the base of the service area is the mounting base for the whole system. This flange (Ø460 mm OD / thickness 10 mm) six slots, each 40° long, on a bolt circle diameter of 382 mm. These slots are used to tune the azimuth of the antenna. Mounting must be achieved with one bolt per slot (total six bolts M10, provided).</p>	<p style="text-align: center;">Mounting Flange Interface</p> 
Installation of Cables	
<p>The shroud of the service area is left open on 14 cm at the bottom side, in order to let the cables in. It is recommended to use 1/2" Super-Flexible coaxial jumpers, in order to make their installation in the service area easier, due to their minimal bending radius (see installation guide).</p>	<p style="text-align: center;">Service Area (Opened Shroud)</p> 

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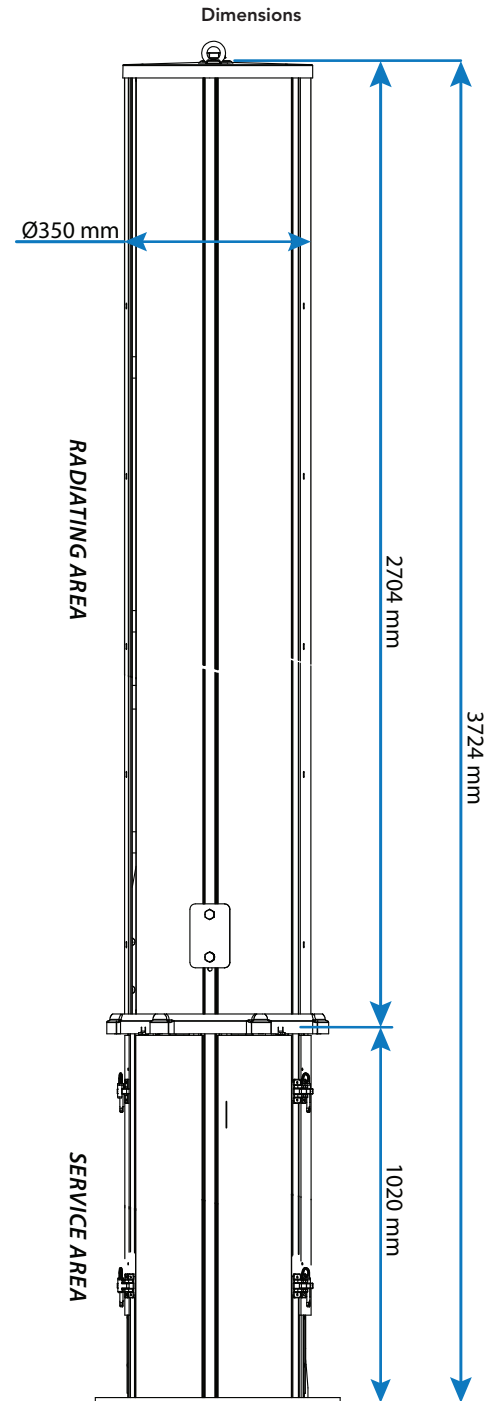
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Tilt indicators covered by transparent caps.
Manual adjustment is accessed by removing the caps.
Knob colors are the same as the connectors.

- Red:** 790-960 MHz
- Blue:** 1710-2170 MHz; optimised 2100 band
- Yellow:** 1710-2690 MHz

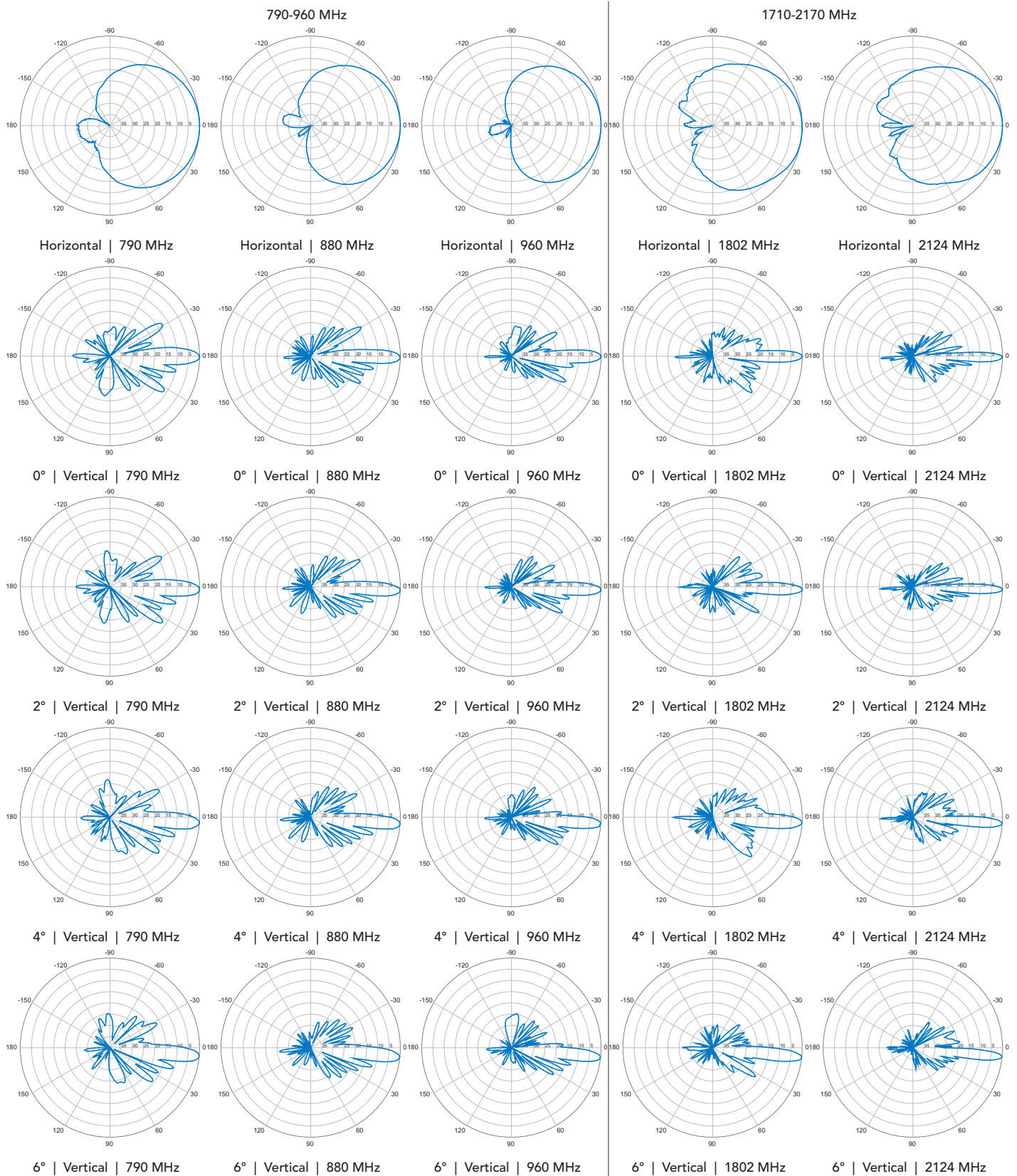
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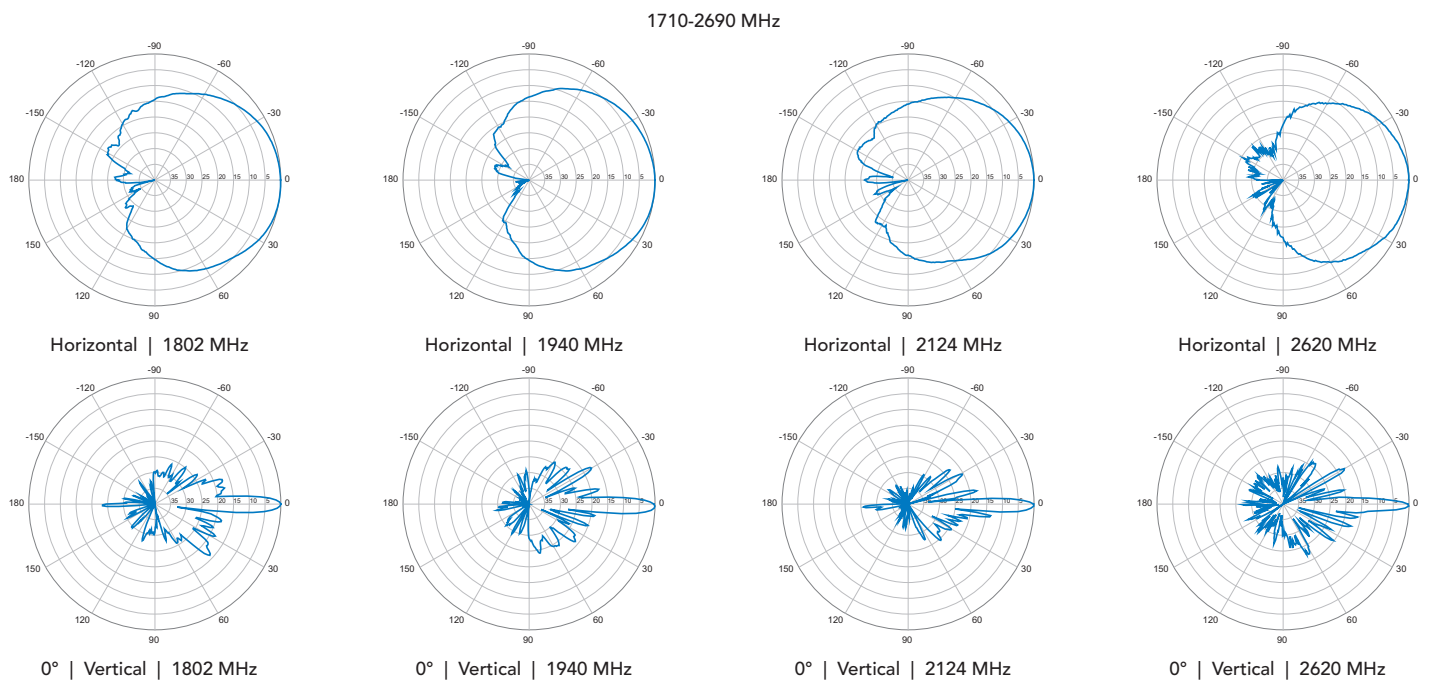
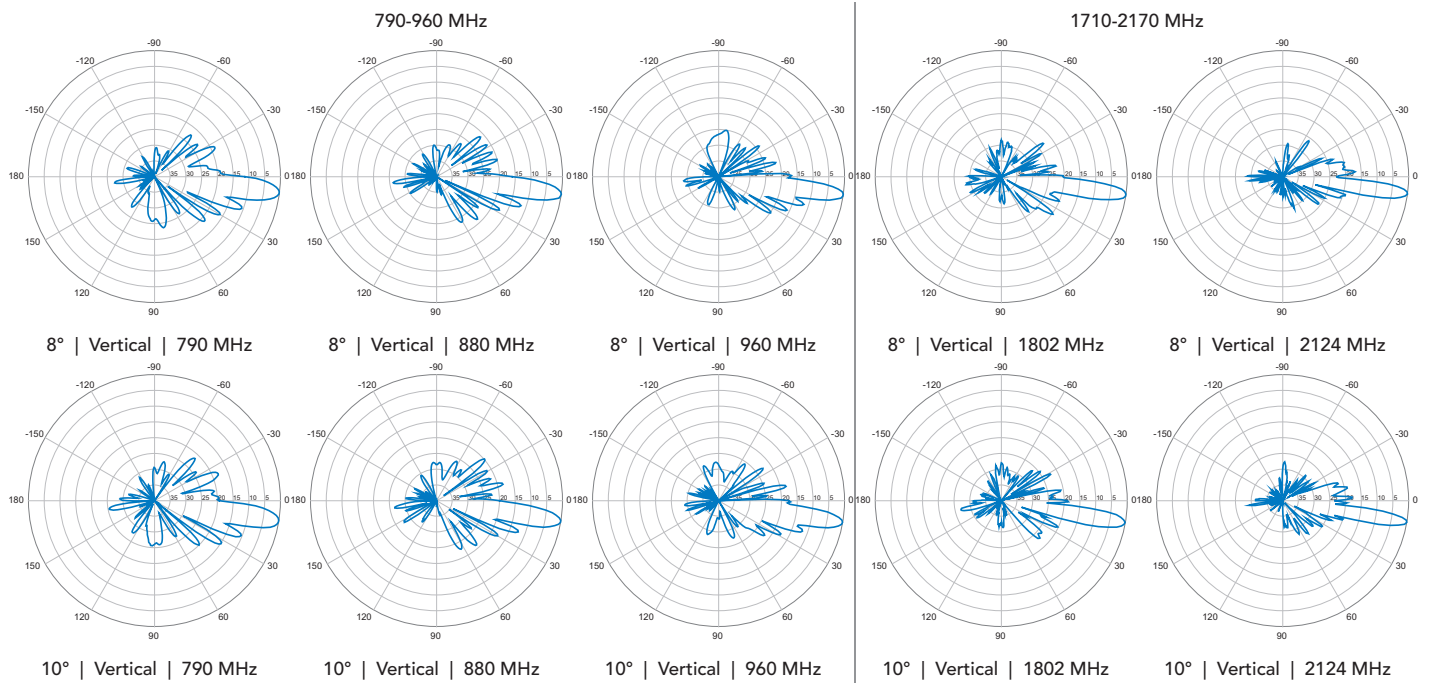
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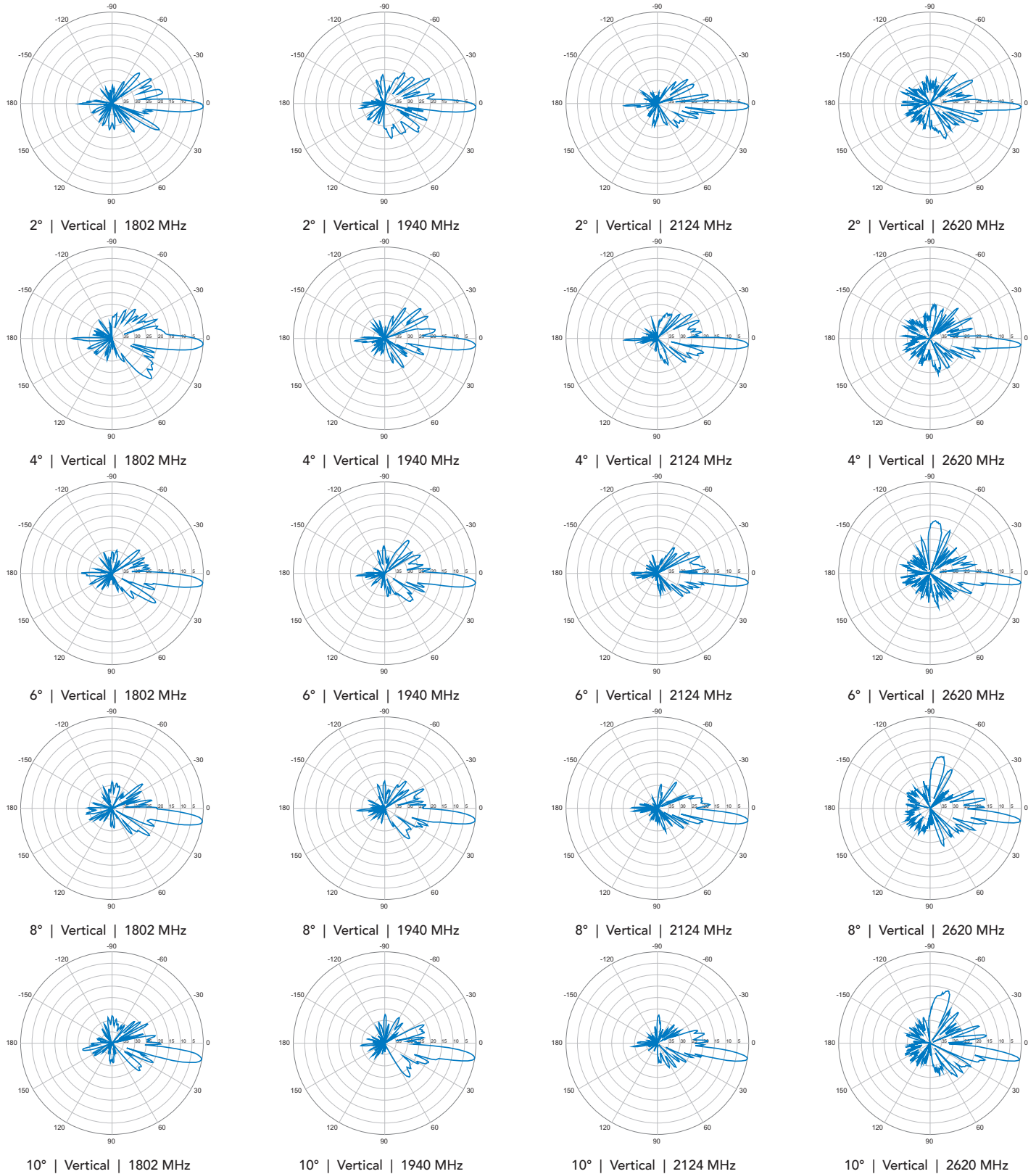


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1710-2690 MHz



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