

6878203

Tri Band | Tri-Sector TRIO™ Antenna | XXX-Pol | 66° / 65° / 65° | 16.5 / 18.6 / 18.6 dBi | Variable Tilt



- Tri band, XXX-Pol, variable tilt, tri-sector antenna
- Independent tilt on each band 0-10°/0-10°/0-10°
- Independent azimuth panning ±15° on each sector
- Available as a Manual or Remote Electrical Tilt Antenna, AISG v1.1 or AISG v2.0/3GPP

LTE 800 & 2600 Ready

Ordering Options	Three Sectors	Two Sectors	One Sectors
Manual Electrical Tilt	6878203	6878202	6878201
Remote Electrical Tilt AISG v1.1	6878203A	6878202A	6878201A
Remote Electrical Tilt AISG v2.0 / 3GPP	6878203G	6878202G	6878201G

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°)	64° (±4°)	67° (±3°)	64° (±4°)	60° (±3°)
Vertical Beamwidth		9°	5.7°	4.9°	5.5°	5°	4.0°
Gain	0° Tilt	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
	5° Tilt	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
	10° Tilt	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
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 Ports (intra-band)	0°-2° Tilt	> 28 dB		> 28 dB		> 28 dB	
	All Other Tilts	> 30 dB		> 30 dB		> 30 dB	
Isolation Between Bands (inter-band; typical)		45 dB		45 dB		45 dB	
IM3 (2x20W carrier)		< -110 dBm		< -110 dBm		< -110 dBm	
Input Power (max)		200 W		160 W		160 W	

Total Number of Connectors	Three Sector Antenna	18 connectors located at the bottom	
	Two Sector Antenna	12 connectors located at the bottom	
	One Sector Antenna	6 connectors located at the bottom	
Connectors Per Sector	790-960 MHz	2 Connectors / 7/16-DIN Female / Long Neck / Red Rings	
	1710-2170 MHz	2 Connectors / 7/16-DIN Female / Ultra Long Neck / Blue Rings	
	1710-2690 MHz	2 Connectors / 7/16-DIN Female / Ultra Long Neck / Yellow Rings	

Operating Temperature	-40° to +60° C (-40° to 140° F)	
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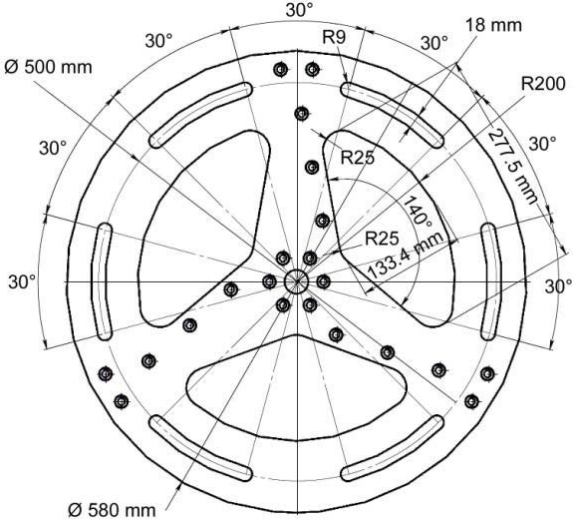

Mechanical Characteristics			
Shroud Material / Colour		Outdoor Plastic, Grey RAL7035	
Relative Directions of Internal Antennas (sector axis)		0° ±15°, 120° ±15°, 240° ±15°	
Dimensions (Length x Diameter)		2325 x Ø573 mm	91.5 x Ø22.6 in
Antenna Weight	Three Sectors	140 kg	308.6 lbs
	Two Sectors	110 kg	242.5 lbs
	One Sector	80 kg	176.4 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)		790 N	178 lbf



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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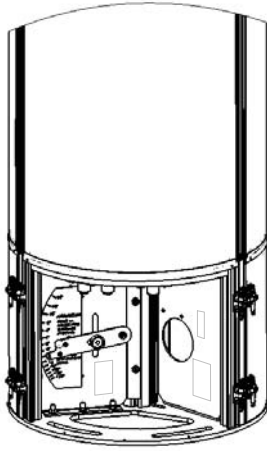
Environmental Characteristics	
Environmental	ETS 300 019
RoHS Compliant	Yes
Electrical Downtilt Control	
Electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s).	
Manual Electrical Tilt (MET) Control	A coloured knob at the end of the tilt indicator allows change of the tilt without need of a tool. The knob colour is identical to the corresponding connector ring colour. 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).
RET Module (One Per Sector)	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 per sector in 6878203A
	Part Number for 3GPP/AISG v2.0 protocol: MDCU-G0000 One unit installed per sector in 6878203G
Important Installation Instructions 	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.
Mounting Options	
Mounting Flange Interface	<p>Six Curved Slots 18 mm Wide on a 500 mm Diameter Circle</p> 
TRIO Extension (must be ordered separately)	<p>A TRIO Extension is a short mounting (0.85 m) mast which has the same diameter (573 mm), same outside material, and same colour as the antenna. The two major advantages of the extensions are getting the antenna higher, and housing our TMA.</p> <p>For more details and part numbers please refer to our separate documentation on TRIO extensions.</p> 

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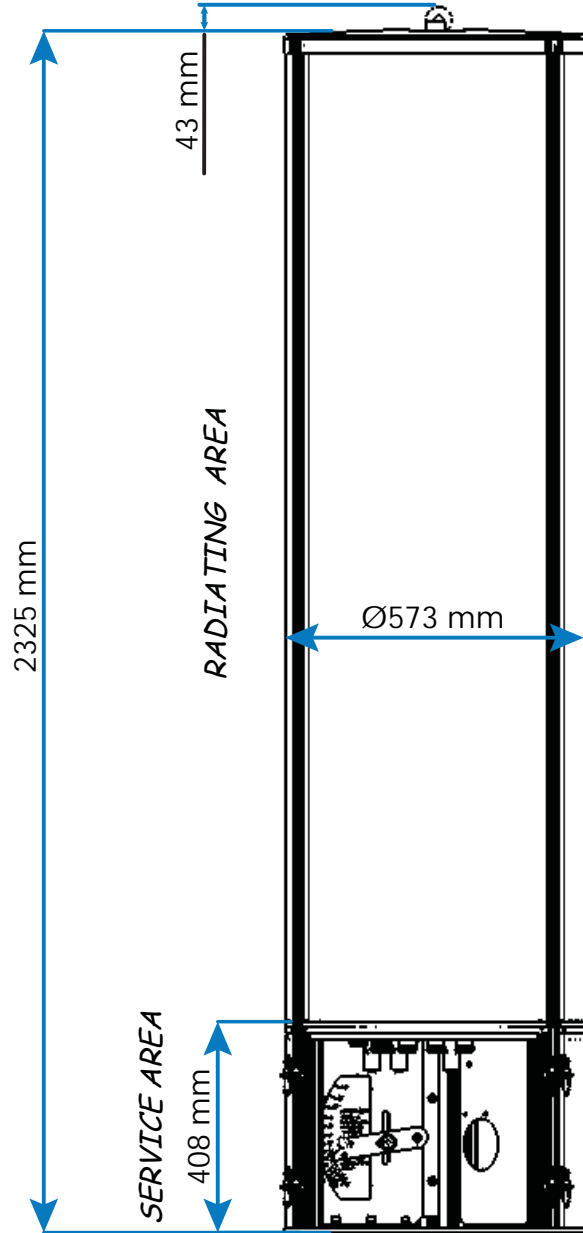
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Antenna Service Area



Dimensions



Antenna Bottom View Inside Service Area



Location of the MDCU
for RET Control

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



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.