

Trio Ultraline Series

Preliminary

LTE 800 Ready

LTE 2600 Ready

6888203

6888203A 6888203G

- Tri-sector Quad Band Antenna, dual polarisation, 8 connectors per sector
- Independent tilt on each band 0°-10° / 0°-10° / 0°-10°
- Independent azimuth panning ±15° on each sector
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0

XXXXpol / 65° Az

16.5 / 18.1 / 18.3 / 18.6 dBi

Presentation

The 6888203 is a tri-sector system and contains three quad-band antennas installed at 120° in a cylindrical shroud with ±15° azimuth panning capability independent on each sector.

A service area at the bottom can be opened for the access to the connectors and to the manual adjustments of the electrical downtilts and the azimuth panning.

Variants can be delivered with only one or two sector fitted. See table below.

Model Reference Numbers

	Three sectors	Two sectors	One sector
MET	6888203	6888202	6888201
RET AISG1.1	6888203A	6888202A	6888201A
RET 3GPP/AISG2.0	6888203G	6888202G	6888201G

Access Ports Description (Connectors)

Each sector has 8 connectors located at its bottom face and marked with colour rings.

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 Long Neck
2600:	2500-2690 MHz ports	Yellow 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	Extended Low Band Red	Wide Band Blue		2600 Yellow	Ultra Wide Band Yellow			
	790...880...960	1710...1880	1900...2170	2500...2690	1710...1880	1900...2170	2500...2690	
Frequency Band (MHz)	790...880...960	1710...1880	1900...2170	2500...2690	1710...1880	1900...2170	2500...2690	
Gain (dBi)	tilt 0°	15.5...16.0...16.5	17.4...17.7	17.7...18.1	18.0...18.3	17.6...17.9	17.9...18.4	18.3...18.6
	tilt 5°	15.5...16.0...16.5	17.3...17.5	17.5...17.9	17.7...17.9	17.5...17.7	17.7...18.2	18.0...18.2
	tilt 10°	15.4...15.9...16.4	17.3...17.4	17.4...17.7	17.4...17.5	17.5...17.6	17.6...18.0	17.7...17.8
Input Impedance	50 ohms	50 ohms		50 ohms	50 ohms			
VSWR	<1.5	<1.5		<1.5	<1.5			
Polarisation	±45°	±45°		±45°	±45°			
Horizontal Beamwidth (-3 dB)	66° (+/-6°)	67°(+/-3°)	64°(+/-4°)	60° (+/-3°)	67°(+/-3°)	64°(+/-4°)	60°(+/-3°)	
Vertical Beamwidth (-3 dB)	9°	5.5°	5.0°	4.0°	5.5°	5.0°	4.0°	
Electrical Downtilt range	0° to 10°	0° to 10°		0° to 10°	0° to 10°			
Isolation between ports	>30 dB	>30 dB		>30 dB	>30 dB			
Isolation between bands	>30 dB	>30 dB		>30 dB	>30 dB			
Upper Sidelobe Rejection (20° sector above main beam)	18 dB typ.	18 dB typ.		18 dB typ.	18 dB typ.			
Front to back ratio	>30 dB	>30 dB		>30 dB	>30 dB			
Maximum Power (per port)	200 W	160 W		160 W	160 W			
Intermodulation 3rd order for 2 x 20 W carriers	<-110 dBm	<-110 dBm		<-110 dBm	<-110 dBm			

Electrical Downtilt Control

Electrical downtilt can be controlled separately for Extended Low Band red, Wide Band blue, 2600 yellow, and Ultra Wide Band yellow.

Each tilt indicator is 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 or to read the tilt angle, 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 (one per sector is required)	MDCU-A0000 for AISG1.1 protocol (one unit included in 6888203A) MDCU-G0000 for 3GPP/AISG2.0 protocol (one unit included in 6888203G)
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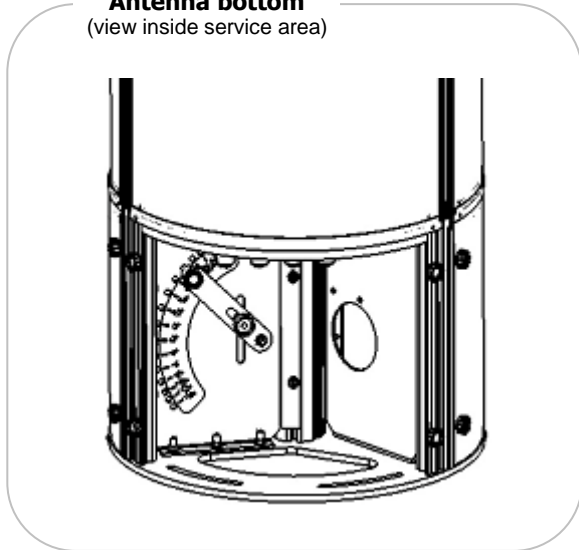
Preliminary

6888203

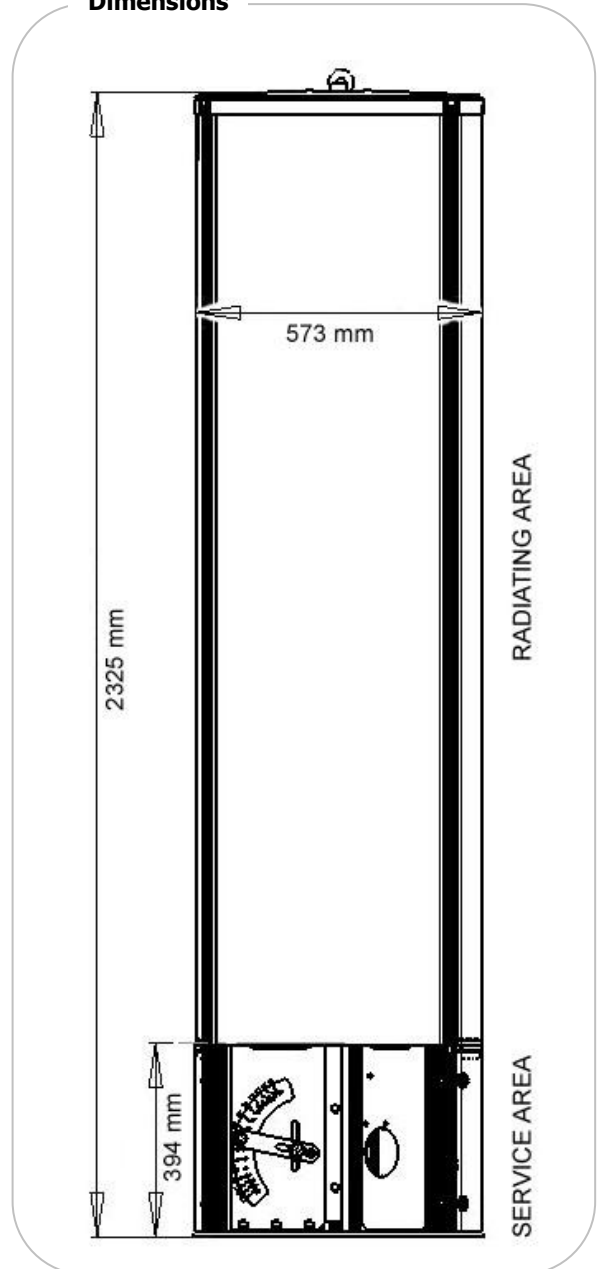
6888203A 6888203G

Environmental	
Operating Temperature Range	-40°C to +60°C
Environmental	ETS 300 019
RoHS compliant	Yes
Mechanical Characteristics	
Dimensions	Total height: 2325 mm (including 394 mm service area) Diameter: 573 mm
Relative directions of internal antennas (sector axis)	0° (+/-15°) 120° (+/-15°) 240° (+/-15°)
Weight	3 sectors: 190 kg 2 sectors: 153 kg 1 sector: 116 kg
Shroud	Outdoor plastic, Grey RAL7035
Wind Speed	Operational: 160 km/h Survival: 200 km/h
Wind load at 160 km/h	790 N

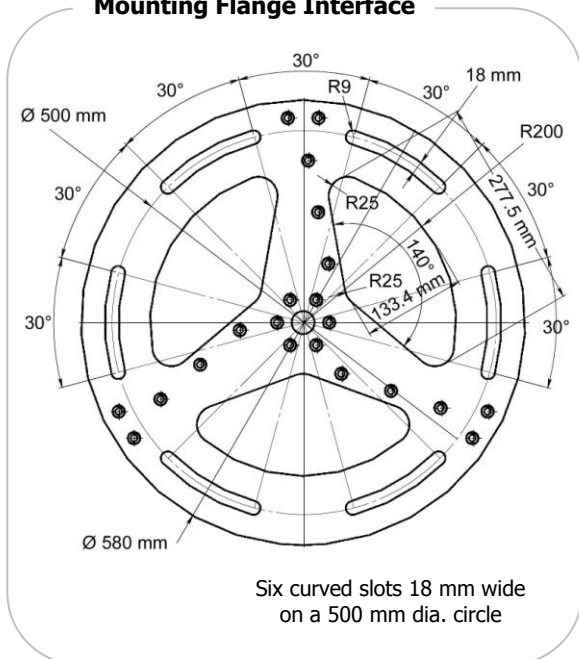
Antenna bottom
(view inside service area)



Dimensions



Mounting Flange Interface



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TRIO extension

General Description	
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.	
Dimensions	Height 0.85 m Diameter 573 mm
Weight	66 kg
Shroud	Outdoor plastic, Grey RAL 7035
Flange	Galvanised steel
Wind speed	Operational : 160 km/h Survival : 200 km/h
For more details and part numbers please refer to our separate documentation on TRIO extensions.	

