

- Cylindrical base-mounted sector antenna
- 340 mm diameter
- Triple Band Antenna, Dual polarisation, 6 connectors
- Same RF characteristics as our 6880200 antenna
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Service area under the antenna, provided with jumpers for TMA2100
- Tilttable base mount

LTE 800 Ready
LTE 2600 Ready

XXXpol / 65° Az
17.5 / 18.6 / 18.6 dBi

Model number options: **6880220-K01** Manual electrical tilt antenna
6880220A-K01 Remote electrical tilt antenna (AISG1.1)
6880220G-K01 Remote electrical tilt antenna (3GPP/AISG2.0)

Access Ports Description (Connectors)			
The Antenna has 6 connectors located at its bottom face and marked with colour rings. See photo on next page.			
Ultra 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
Ultra Wide band:	1710 - 2690 MHz ports	Yellow rings	2 x 7-16 DIN female Ultra Long Neck

Electrical Characteristics	Ultra Low Band Red	Wide Band Blue		Ultra Wide Band Yellow		
	790...880...960	1710...1880	1900...2170	1710...1880	1900...2170	2500...2690
Frequency Band (MHz)						
Gain (dBi)	tilt 0°	16.5...17.0...17.5	17.8...18.2	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	18.0...18.2
	tilt 10°	16.4...16.9...17.4	17.6...17.8	17.5...17.6	17.5...17.6	17.7...17.8
Input Impedance	50 ohms	50 ohms		50 ohms		
VSWR	<1.5	<1.5		<1.5		
Polarisation	±45°	±45°		±45°		
Horizontal Beamwidth (-3 dB)	66° (+/-6°)	67° (+/-3°)	67° (+/-3°)	67° (+/-3°)	67° (+/-3°)	60° (+/-3°)
Vertical Beamwidth (-3 dB)	7.3°	5.5°	5.5°	5.5°	5.5°	4.0°
Electrical Downtilt range	0° to 10°	0° to 10°		0° to 10°		
Isolation intraband	>30 dB	>30 dB		>30 dB		
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 Ultra Low Band red, Wide Band blue, and Ultra Wide Band Yellow.

The three tilt indicators are covered by a removable transparent cap. See photo on next page.

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 (RET) : 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 6880220A-K01)

MDCU-G0000 For 3GPP/AISG2.0 protocol (one unit included in 6880220G-K01)

An antenna ordered in a RET version is delivered fitted with its factory preset MDCU module, operational with no further action.



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.

The both parts together are mounted on a tiltable base mount.

Dimensions (see drawing)	Height: 3724 mm	Diameter : 350 mm
Weight	Antenna :64 kg	Service area : 37 kg
	Base mount : 37 kg	Total : 138 kg
Shrouds	Outdoor plastic, Grey RAL7035	
Wind speed	Operational : 160 km/h	Survival : 200 km/h
Wind load at 160 km/h	1160 N	

List of parts

The supply includes :

- One antenna 6880220, or 6880220A, or 6880220G
- One service area, length 1 m
- One foldable base mount CLX-HNG-003
- Two 30 cm, UT250 coaxial jumpers to connect the TMA2100 to the "blue" ports of the antenna
- One TMA support
- All screws, nuts and washers for assembly

The supply does not include :

- Any fastenings for the mounting of the base mount to the ground
- The TMA2100

Installation of cables

The flange at the base of the service area is the mounting base for the whole system. This flange (\varnothing_{ext} 460 mm / 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).

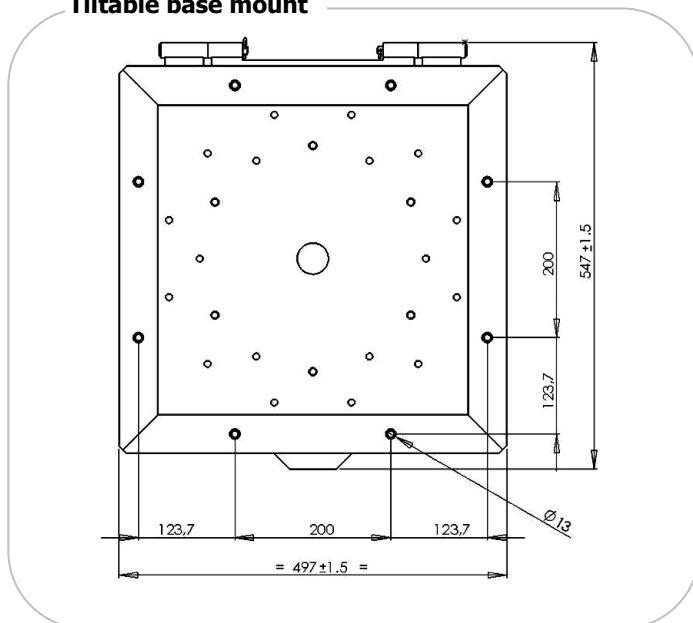
The shroud of the service area is left open on 14 cm at the bottom, in order to let the cables in.

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).

Environmental

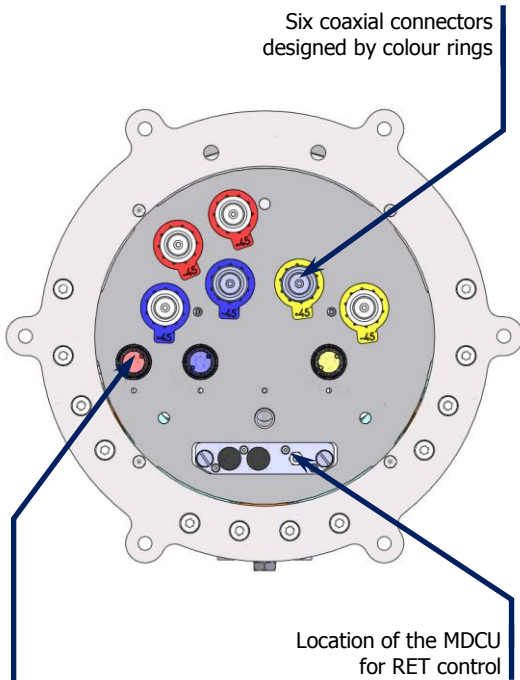
Operating Temperature Range	-40°C to +60°C
Environmental	ETS 300 019

Tiltable base mount



DT 5664 – Ed C - page 2/3 - We reserve the rights to modify our products without prior notice - Several patents pending regarding this product.

Antenna bottom

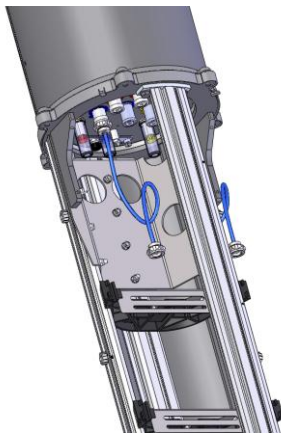


Three tilt indicators covered by a transparent cap. Manual adjustment and tilt reading are accessed by removing the cap. Knob colour is the same as connectors.

For RET control, the cap must be in place.

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

Service area (opened shroud)



Dimensions

