

- Penta-Band Antenna, dual polarisation, 10 connectors
- Independent tilt on each band 0°-10°/0°-10°/0°-12°/0°-12°/0°-12°
- Lightweight TwinLine platform and low windload
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Fully internal RET control based on our patented technologies (field replaceable)

**XXXXXpol / 65° Az**  
**17.5 / 17.5 / 17.5 / 17.5 / 17.5 dBi**  
**0-10 / 0-10 / 0-12 / 0-12 / 0-12 °**  
**2683 x 432 x 153 mm**

### Optimal profile - Low windload

Model number options:	<b>5970300</b>	Manual Electrical tilt Antenna
	<b>5970300A</b>	Remote Electrical Tilt Antenna (AISG1.1)
	<b>5970300G</b>	Remote Electrical Tilt Antenna (3GPP/AISG2.0)
	<b>5970300DG</b>	Remote Electrical Tilt Antenna with MDDU (3GPP/AISG2.0)

Access Ports Description (Connectors)			
The Antenna has 10 colour coded connectors located at its bottom. See picture next page.			
<b>R1 R2</b>	Ultra Low Band:	698-960 MHz ports	4 x 7-16 DIN female Long Neck
<b>Y1 Y3</b>	Ultra Wide Band Bottom System:	1695-2690 MHz ports	4 x 7-16 DIN female Long Neck
<b>Y2</b>	Ultra Wide Band Top System:	1695-2690 MHz ports	2 x 7-16 DIN female Long Neck

Electrical Characteristics	R1-R2			Y1-Y3 (Bottom)			Y2 (Top)			
	700	800	900	1800	2100	2600	1800	2100	2600	
Frequency Bands										
Gain (dBi)	tilt 0°	16.0	16.7	17.4	17.0	17.5	17.5	17.0	17.5	17.5
	tilt 5°	16.0	16.6	17.3	17.0	17.5	17.5	17.0	17.5	17.5
	tilt 10°	15.7	16.4	17.0	17.0	17.4	17.4	17.0	17.4	17.4
Input Impedance	50 ohms			50 ohms			50 ohms			
VSWR	<1.5			<1.5			<1.5			
Polarisation	±45°			±45°			±45°			
Horizontal Beamwidth (-3 dB)	75°	72°	70°	68°	66°	72°	68°	66°	72°	
Vertical Beamwidth (-3 dB)	8.6°	7.5°	6.7°	7.0°	6.4°	5.2°	6.5°	5.9°	4.7°	
Electrical Downtilt range	0° to 10°			0° to 12°			0° to 12°			
Inter/Intra Band Isolation	>25 dB			>25 dB			>25 dB			
Upper Sidelobe Rejection (20° sector above main beam)	18 dB typ.			18 dB typ.			18 dB typ.			
Front to back @180°+/-30°	>25 dB			>25 dB			>25 dB			
Maximum Power (per port)	250 W			200 W			200 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 each Low or High Band array. The tilt indicators are covered by a removable transparent cap.	
<b>Manual control:</b> 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.	
<b>Remote control:</b> 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 only needed per antenna)	MDCU-A0000 for AISG1.1 protocol (one unit included in 5970300A) MDCU-G0000 for 3GPP/AISG2.0 protocol (one unit included in 5970300G)

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



Ed E 2015-12-09- page 1/2 - We reserve the rights to modify our products without prior notice - Several patents pending regarding this product.



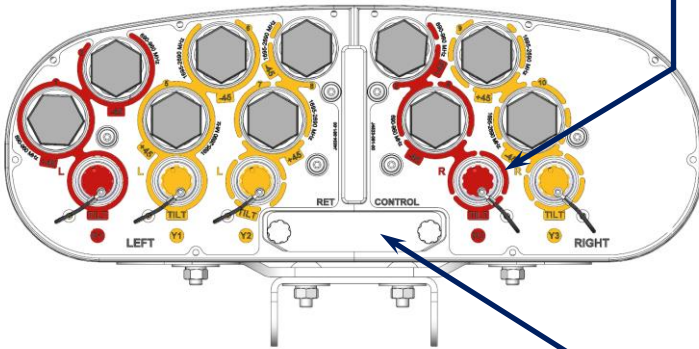
Mechanical Characteristics	
Dimensions (see drawing)	Height: 2683 mm Width: 432 mm Depth: 153 mm
Weight	45 kg (excluding mounting accessory)
Shroud	Outdoor fiberglass, Grey RAL7035
Wind Speed	Operational: 160 km/h Survival: 200 km/h
Wind load at 150 km/h	Frontal: 790 N Lateral: 555 N Rear: 920 N

Packaging
Carton box
2.93 x 0.55x 0.28 m
0.45 m <sup>3</sup>
56 kg (including 0900181/00)

Mounting Accessories		
Description	Part number	Weight
Brackets for pole 48 to 115 mm (delivered as standard)	0900181/00	3.4 kg
Brackets for pole 70 to 150 mm (optional)	0900182/00	3.9 kg
Kit to add mechanical tilt to above brackets (optional)	0900397/00	2.3 kg

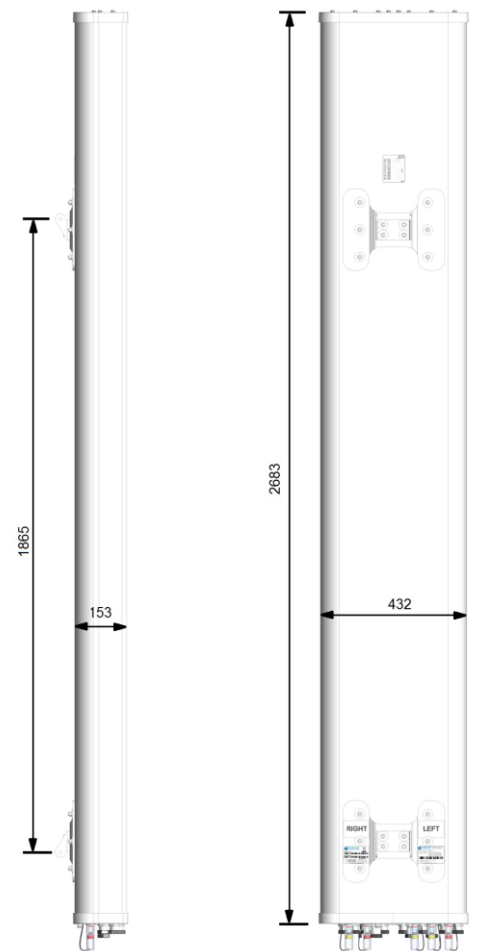
**Antenna bottom**

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



Location of the MDCU for RET control

**Dimensions (in mm)**



**Installation**

Always attach the antenna by its 2 mounting points.  
Do not install the antenna with the connectors facing upward.



In order to operate RET control, the transparent cap covering the tilt adjustment indicator must be engaged and locked. Do not cut it from the antenna.