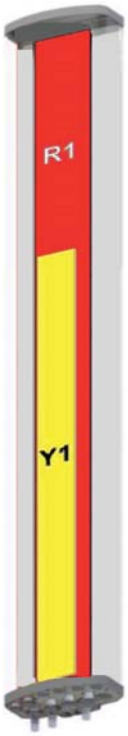
# 6861300

2Xpol | 65° Az | 17.4 / 17.9 dBi | 0-10° / 0-10° | 2696 x 305 x 162 mm

- Dual band antenna, dual polarisation, 4 connectors
- Independent tilt on each band 0-10° / 0-10°
- UltraLine platform with multi-array capability
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Available with 7/16-DIN or 4.3/10 connectors
- Single RET module to control all tilt angles, fully inserted inside the antenna (field replaceable)

UltraLine LTE Ready

| ORDERING OPTIONS | MODEL NUMBER | |
|---|---|---|
| | 7/16-DIN Connectors | 4.3/10 Connectors |
| Manual Electrical Tilt Antenna | **6861300** | **6861300N** |
| Remote Electrical Tilt Antenna AISG1.1 | **6861300A** | **6861300NA** |
| Remote Electrical Tilt Antenna 3GPP/AISG2.0 with an MDCU RET Actuator | **6861300G** | **6861300NG** |
| Remote Electrical Tilt Antenna 3GPP/AISG2.0 with an MDDU RET Actuator | **6861300DG** | **6861300NDG** |




| ACCESS PORT DESCRIPTION (CONNECTORS) | | |
|---|---|---|
| The antenna has 4 colour-coded connectors located at the bottom face. | | |
| Frequency Designation | R1 | Y1 |
| Frequency Range | 698-960 MHz | 1695-2690 MHz |
| Polarisation | Xpol | Xpol |
| Horizontal Beamwidth | 65° | 65° |
| Electrical Downtilt Range | 0-10° | 0-10° |
| Connector Type | (2x) 7/16-DIN Female Long Neck or (2x) 4.3/10 Female | (2x) 7/16-DIN Female Long Neck or (2x) 4.3/10 Female |

| ELECTRICAL CHARACTERISTICS | R1 | | |
|---|---|---|---|
| Frequency Bands | 698-960 MHz | | |
| | 700 MHz | 800 MHz | 900 MHz |
| Gain | 16.0<br>16.0<br>15.7 | 16.7<br>16.6<br>16.4 | 17.4<br>17.3<br>17.0 |
| Input Impedance | 50Ω | | |
| VSWR | < 1.5 | | |
| Polarisation | ±45° | | |
| Horizontal Beamwidth (-3 dB) | 73° | 68° | 67° |
| Vertical Beamwidth (-3 dB) | 8.6° | 7.5° | 6.7° |
| Electrical Downtilt Range | 0-10° | | |
| Inter/Intra Band Isolation | > 28 dB | | |
| Upper Sidelobe Rejection (20° sector above main beam) | 18 dB Typical | | |
| Front-to-Back Ratio @ 180° ±30° | > 25 dB | | |
| Maximum Power (Per Port) | 250 W | | |
| Intermodulation 3rd Order for 2 x 20W Carriers | < -110 dBm | | |

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| ELECTRICAL CHARACTERISTICS | Y1 | | |
|---|---|---|---|
| Frequency Bands | 1695-2690 MHz | | |
| | 1800 MHz | 2100 MHz | 2600 MHz |
| Gain | 17.5<br>17.5<br>17.4 | 17.7<br>17.7<br>17.6 | 17.9<br>17.8<br>17.5 |
| Input Impedance | 50Ω | | |
| VSWR | < 1.5 | | |
| Polarisation | ±45° | | |
| Horizontal Beamwidth (-3 dB) | 68° | 65° | 63° |
| Vertical Beamwidth (-3 dB) | 6.1° | 5.3° | 4.2° |
| Electrical Downtilt Range | 0-10° | | |
| Inter/Intra Band Isolation | > 28 dB | | |
| Upper Sidelobe Rejection<br>(20° sector above main beam) | 18 dB Typical | | |
| Front-to-Back Ratio @ 180° ±30° | > 25 dB | | |
| Maximum Power (Per Port) | 200 W | | |
| Intermodulation<br>3rd Order for 2 x 20W Carriers | < -110 dBm | | |

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| 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 Multi-Device Control Unit (MDCU) or a Multi-Device Dual Unit (MDDU) inserted in the bottom of the antenna. A single actuator individually controls the tilt of each band (no need for daisy chain cables between the bands). This module does not add any additional length to the antenna. For RET control, the transparent caps must be in place and locked. The tilt angle indicators always remain visible and the antenna still has manual tilt control (manual override). |
| **RET-Ready** antennas are delivered with the RET Actuator (MDCU or MDDU) already installed and pre-commissioned with all antenna parameters. Every RET device is factory configured and calibrated so the antenna is ready to be used once delivered to the site which means that there is no need for further installation of RET devices or for programming their configuration or for running a calibration process. | | |
| RET-Ready Actuator (one per antenna) | Multi-Device Control Unit (MCDU) | The MDCU is an electronic module that allows the remote control of the electrical downtilt (RET) in Amphenol antennas with factory embedded motors. Refer to ordering options. |
| | Multi-Device Dual Unit (MDDU) | The MDDU allows two separate RET Controllers to independently drive the RETs in antennas with factory embedded motors (for antenna sharing or two technologies). Refer to ordering options. |

| ENVIRONMENTAL CHARACTERISTICS | |
|---|---|
| Operating Temperature Range | -40° C to +60° C |
| Environmental | ETS 300 019 |
| RoHS Compliant | Yes |
| **MECHANICAL CHARACTERISTICS** | |
| Dimensions (see drawing) | Height: 2696 mm Width: 305 mm Depth: 162 mm |
| Weight | 26 kg (excluding mounting accessory) |
| Shroud | Outdoor plastic, Grey RAL7035 |
| Wind Speed | Operational: 160 km/hr Survival: 200 km/h |
| Wind Load at 150 km/h | Frontal: 1032 N Lateral: 469 N Rear: 1011 N |

| MOUNTING KIT OPTIONS | PART NUMBER | WEIGHT |
|---|---|---|
| All mounting bracket kits are ordered separately unless otherwise indicated. | | |
| Brackets for pole Ø48 to Ø115 mm (delivered as standard) | 0900181/00 | 3.4 kg |
| Brackets for pole Ø70 to Ø150 mm (optional) | 0900182/00 | 3.9 kg |
| Kit to add mechanical tilt (0°-10°) to above brackets (optional) | 0900397/00 | 3.0 kg |
| Wall mounting brackets are available upon request. | | |

**PACKAGING**

Carton Box
2.95 x 0.40 x 0.28 m
0.243 $m^3$
36.5 kg

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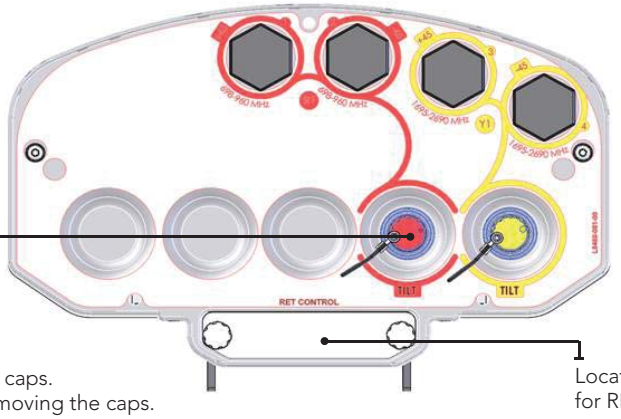
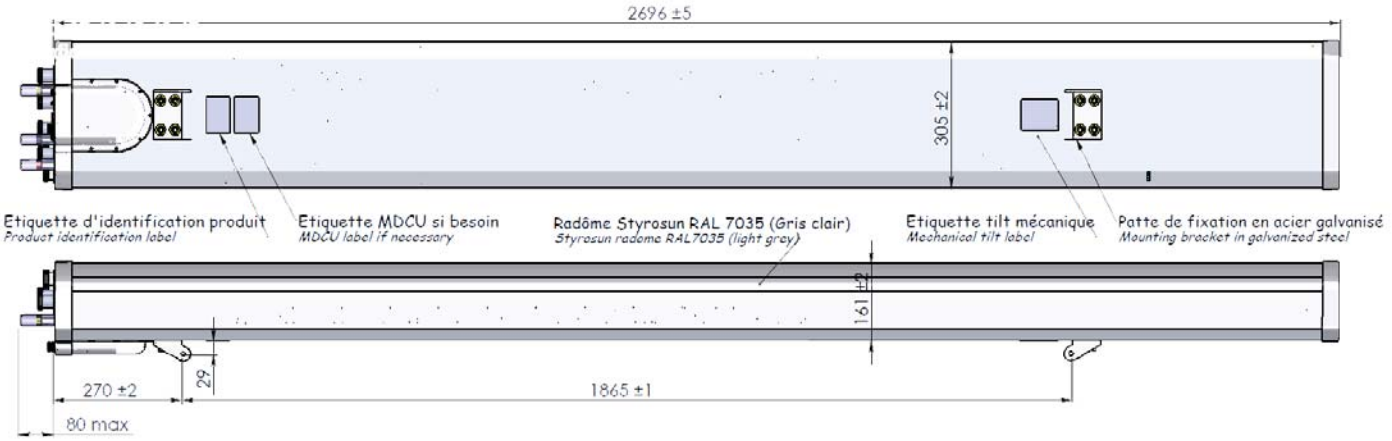
**Bottom View of Antenna**




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

Location of the MDCU or MDDU for RET Control

**Dimensions (in mm)**




**Installation**

Always attach the antenna by the two 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.