

5970300

5970300A 5970300G 5970300DG

XXXXXpol | 65° Az | 17.4 / 17.4 / 17.5 / 17.5 / 17.5 dBi | 0-10° / 0-10° / 0-12° / 0-12° / 0-12° | 2683 x 432 x 153 mm



- 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 with low windload
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Fully internal RET control based on our patented technologies (field replaceable)

OPTIMAL PROFILE - LOW WINDLOAD

Ordering Options	Model Number
Manual Electrical Tilt Antenna	5970300
Remote Electrical Tilt Antenna AISG1.1	5970300A
Remote Electrical Tilt Antenna 3GPP/AISG2.0 with an MDCU RET Actuator	5970300G
Remote Electrical Tilt Antenna 3GPP/AISG2.0 with an MDDU RET Actuator	5970300DG

Access Ports Description (Connectors)
The antenna has 10 colour-coded connectors located at the bottom face. See image on the following page.

R1 R2	Ultra Low Band	698-960 MHz Ports	(4x) 7/16-DIN Female Long Neck
Y1 Y3	Ultra Wide Band Bottom System	1695-2690 MHz Ports	(4x) 7/16-DIN Female Long Neck
Y2	Ultra Wide Band Top System	1695-2690 MHz Ports	(24x) 7/16-DIN Female Long Neck

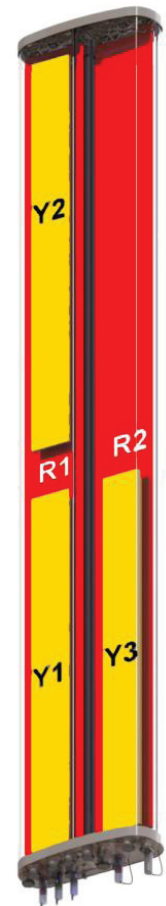
Electrical Characteristics	R1-R2			Y1-Y3 (Bottom)			Y2 (Top)			
Frequency Bands (MHz)	700	800	900	1800	2100	2600	1800	2100	2600	
Gain (dBi)	Tilt 0°	16.0	16.7	17.4	17.0	17.5	17.5	17.0	17.5	17.5
	Tilt 5°	16.0	16.6	17.3	17.0	17.5	17.5	17.0	17.5	17.5
	Tilt 10°	15.7	16.4	17.0	17.0	17.4	17.4	17.0	17.4	17.4
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	0-10°			0-12°			0-12°			
Inter/Intra Band Isolation	> 25 dB			> 25 dB			> 25 dB			
Upper Sidelobe Rejection (20° sector above main beam)	18 dB Typical			18 dB Typical			18 dB Typical			
Front-to-Back Ratio @ 180° ±30°	> 25 dB			> 25 dB			> 25 dB			
Maximum Power (Per Port)	250 W			200 W			200 W			
Intermodulation 3rd Order for 2 x 20W Carriers	< -110 dBm			< -110 dBm			< -110 dBm			

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 either 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 (MDCU)	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.



Several patents pending regarding this product. 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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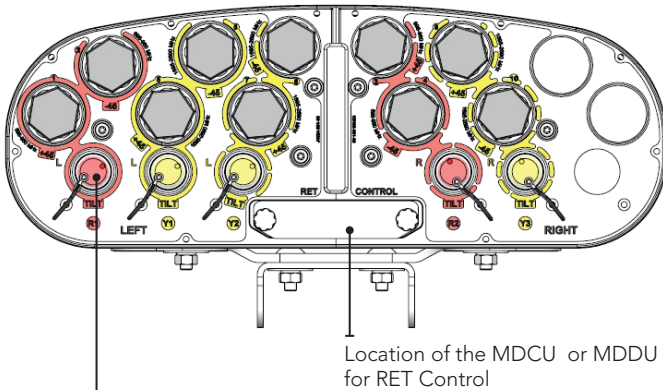
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Environmental		
Operating Temperature Range	-40° C to +60° C	
Environmental	ETS 300 019	
RoHS Compliant	Yes	
Mechanical Characteristics		
Dimensions (see drawing)	Height: 2683 mm Width: 432 mm Depth: 153 mm	
Weight	45 kg (excluding mounting accessory)	
Shroud	Outdoor fibreglass, Grey RAL7035	
Wind Speed	Operational: 160 km/hr Survival: 200 km/h	
Wind Load at 150 km/h	Frontal: 790 N Lateral: 555 N Rear: 920 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
2.93 x 0.55 x 0.28 m
0.45 m ³
56 kg
Includes 0900181/00 Kit

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.

- RED 698-960 MHz
- YELLOW 1695-2690 MHz

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.

Dimensions (in mm)



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