JAYBEAMWireless

6890120-K03

6890120A-K03 6890120G-K03

XXXXpol | 65° Az | 17.5 / 17.3 / 17.3 / 18.6 dBi | 0-10° / 0-12° / 0-12° / 0-10° | 3728 x Ø350 mm

- Quad band, Cylindrical base-mounted sector antenna, dual polarisation, 8 connectors
- 350 mm Diameter
- Same RF characteristics as our 6890100 antenna
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Service area under the antenna

CylLine

LTE 800 Ready
LTE 2600 Ready

Ordering Options	Model Number
Manual Electrical Tilt Antenna	**6890120-K03**
Remote Electrical Tilt Antenna AISG1.1	**6890120A-K03**
Remote Electrical Tilt Antenna 3GPP/AISG2.0 with an MDCU RET Actuator	**6890120G-K03**

Access Ports Description (Connectors)

The antenna has 8 colour-coded connectors located at the bottom face. See image on the following page.

R1	Ultra Low Band	790-960 MHz Ports	(2x) 7/16-DIN Female Long Neck
W1	Wide Band (Top Array)	1710-2170 MHz Ports Pattern optimised for DCS1800	(2x) 7/16-DIN Female Long Neck
B1	Wide Band (Bottom Array)	1710-2170 MHz Ports Pattern optimised for UMTS2100	(2x) 7/16-DIN Female Ultra Long Neck
Y1	Ultra Wide Band	1710-2690 MHz Ports	(2x) 7/16-DIN Female Ultra Long Neck

Electrical Characteristics		R1	W1 & B1		Y1		
Frequency Bands (MHz)		790...880...960	1710...1880	1900...2170	1710...1880	1900...2170	2500...2690
Gain (dBi)	Tilt 0° Tilt Mid Value Tilt Max Value	16.5...17.0...17.5 16.5...17.0...17.5 16.4...16.9...17.4	16.5...16.9 16.4...16.7 16.3...16.5	16.9...17.3 16.7...17.2 16.5...17.0	17.6...17.9 17.5...17.7 17.5...17.6	17.9...18.4 17.7...18.2 17.6...18.0	18.3...18.6 18.0...18.2 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°)	64° (±4°)	67° (±3°)	64° (±4°)	60° (±3°)
Vertical Beamwidth (-3 dB)		7.3°	7.2°	6.7°	5.5°	5.0°	4.0°
Electrical Downtilt Range		0-10°	0-12°		0-10°		
Intra Band Isolation		> 30 dB, > 28 dB from 0° to 2° tilt	> 30 dB, > 28 dB from 0° to 2° tilt		> 30 dB, > 28 dB from 0° to 2° tilt		
Isolation Between Bands		> 30 dB	> 30 dB		> 30 dB		
Upper Sidelobe Rejection (20° sector above main beam)		18 dB Typical	18 dB Typical		18 dB Typical		
Front-to-Back Ratio		> 30 dB	> 30 dB		> 30 dB		
Maximum Power (Per Port)		200 W	160 W		160 W		
Intermodulation 3rd Order for 2x20W 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 a Multi-Device Control Unit (MDCU) 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 Module Part Number (one per antenna)	MDCU-A0000	for AISG1.1 protocol (one unit included in 6890120A-K03)
	MDCU-G0000	for 3GPP/AISG2.0 protocol (one unit included in 6890120G-K03)

Environmental

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

3GPP A GLOBAL INITIATIVE

AISG Antenna Interface Standards Group

6890120-K03

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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 with the exception of the rear of the antenna where the aluminum structure profile is apparent. The service area, mounted under the antenna, is closed by a removable 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.

Please note that it is MANDATORY that the antenna be installed with the provided service area.

Dimensions	Total Height: 3728 mm Diameter: 350 mm
Weight	Total Weight: 103 kg (Antenna: 66 kg, Service Area: 37 kg)
Shrouds	Outdoor Plastic, Grey RAL7035
Wind Speed	Operational: 160 km/hr Survival: 200 km/h
Wind load at 160 km/h	1160 N

Parts Supplied

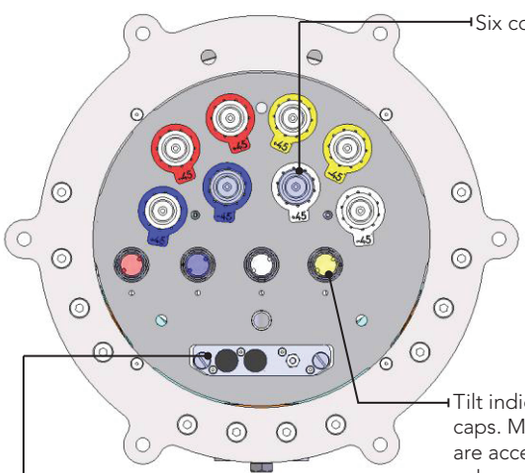
The supply list for this antenna includes: one antenna (6890120, 6890120A or 6890120G); one service area of 1m length; all nuts, screws and washers required for assembly.

Installation of Cables

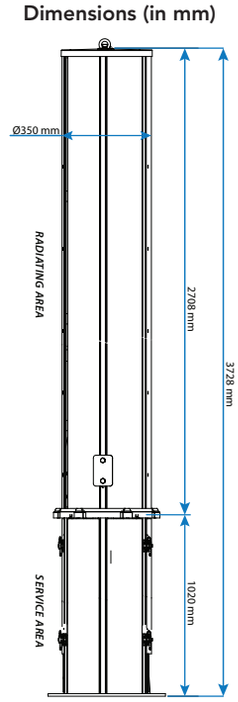
The flange at the base of the service area is the mounting base for the entire system. This flange ($Ø_{ext}$460 mm / thickness 10 mm) has six slots, each 40° long on a bolt circle diameter of 382 mm. These slots are used to tune the azimuth of the antenna. Mounting must be achieved with one bolt per slot (total six bolts M10, provided). The shroud of the service area is left open on 14 cm at the bottom in order to accommodate the cables.

1/2" Super-Flexible coaxial jumpers are recommended for easier installation in the service area, due to the minimal bending radius (see installation guide).

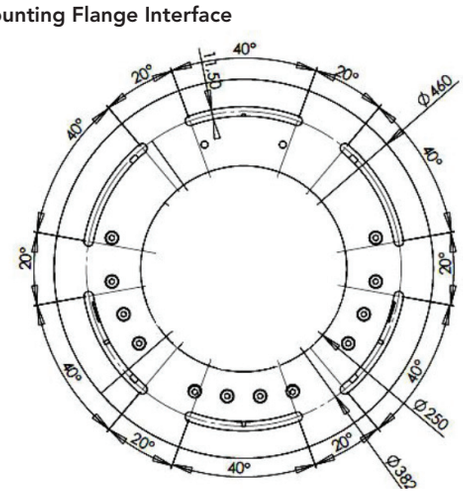
Bottom View of Antenna



Dimensions (in mm)



Mounting Flange Interface



Service Area (Opened Shroud)