Project Design Requirement
Issue C 2015-06-17

CylLine Series

6888320-K03

6888320A-K03 6888320G-K03

- Cylindrical base-mounted sector antenna
- 350 mm diameter
- Quad Band Antenna, Dual polarisation, 8 connectors
- Same RF characteristics as our 6888300 antenna
- MET and RET versions, AISG1.1 or 3GPP/AISG2.0
- Service area under the antenna

XXXXpol / 65° Az
16.5 / 18.0 / 17.5 / 17.5 dBi
0-10 / 0-10 / 0-10 / 0-10 °
1914 x 305 x 162 mm

Model number options:

6888320-K03	Manual Electrical tilt Antenna
6888320A-K03	Remote Electrical Tilt Antenna (AISG1.1)
6888320G-K03	Remote Electrical Tilt Antenna (3GPP/AISG2.0)

Access Ports Description (Connectors)

The Antenna has 8 connectors located at its bottom face and marked with colour rings. See photo next page.

R1	Ultra Low Band:	698-960 MHz ports	2 x 7-16 DIN female Long Neck
Y1	Ultra Wide Band:	1695-2690 MHz ports	2 x 7-16 DIN female Ultra Long Neck
B1	Wide Band:	1695-2180 MHz ports	2 x 7-16 DIN female Ultra Long Neck
Y2	2600:	2490-2690 MHz ports	2 x 7-16 DIN female Long Neck

Electrical Characteristics	R1			Y1			B1		Y2
Frequency Bands	700	800	900	1800	2100	2600	1800	2100	2600
Gain (dBi) tilt 0°	15.2	15.8	16.4	17.5	17.7	17.9	17.2	17.5	17.6
tilt 5°	15.2	15.7	16.3	17.5	17.7	17.8	17.2	17.4	17.5
tilt 10°	14.9	15.5	16.0	17.4	17.6	17.5	17.1	17.3	17.2
Input Impedance	50 ohms			50 ohms			50 ohms		50 ohms
VSWR	<1.5			<1.5			<1.5		<1.5
Polarisation	±45°			±45°			±45°		±45°
Horizontal Beamwidth (-3 dB)	73°	67°	67°	68°	70°	74°	65°	65°	65°
Vertical Beamwidth (-3 dB)	12°	10°	9.4°	6.1°	5.3°	4.2°	6.1°	5.3°	4.2°
Electrical Downtilt range	0° to 10°			0° to 10°			0° to 10°		0° to 10°
Inter/Intra Band Isolation	>25dB			>25dB			>28dB		>28dB
Upper Sidelobe Rejection (20° sector above main beam)	18 dB typ.			18 dB typ.			18 dB typ.		18 dB typ.
Front to back @180°+/-30°	>25 dB			>25 dB			>25 dB		>25 dB
Maximum Power (per port)	250 W			200 W			200 W		200 W
Intermodulation 3rd order for 2 x 20 W carriers	<-110 dBm			<-110 dBm			<-110 dBm		<-110 dBm

Electrical Downtilt Control

Electrical downtilt can be controlled separately for R1, Y1, B1 and Y2 arrays.
The three tilt indicators are covered by a removable transparent cap.

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: 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 6888320A-K03)
	MDCU-G0000	for 3GPP/AISG2.0 protocol (one unit included in 6888320G-K03)

Environmental

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

wi-com solutions
Via Matilde Serao, 18 - 20832 DESIO (MB) Italy - Tel.+39-0362-1722878/1722877
e-mail: info@wicomsolutions.it - web: www.wicomsolutions.it

Project Design Requirement
Issue C 2015-06-17

CylLine Series

6888320-K03

6888320A-K03 6888320G-K03

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.

Dimensions (see drawing)	Height: 1920 mm	Diameter : 350 mm
Weight	Antenna :49 kg Total : 86 kg	Service area : 37 kg
Shrouds	Outdoor plastic, Grey RAL7035	
Wind speed	Operational : 160 km/h	Survival : 200 km/h
Wind load at 160 km/h	915 N	

List of parts

The supply includes :

- One antenna 6888320, or 6888320A, or 6888320G
- One service area, length 1 m
- All screws, nuts and washers for assembly

Installation of cables

The flange at the base of the service area is the mounting base for the whole system. This flange ($Ø_{ext}$ 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 servic 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 +60ºC
Environmental	ETS 300 019

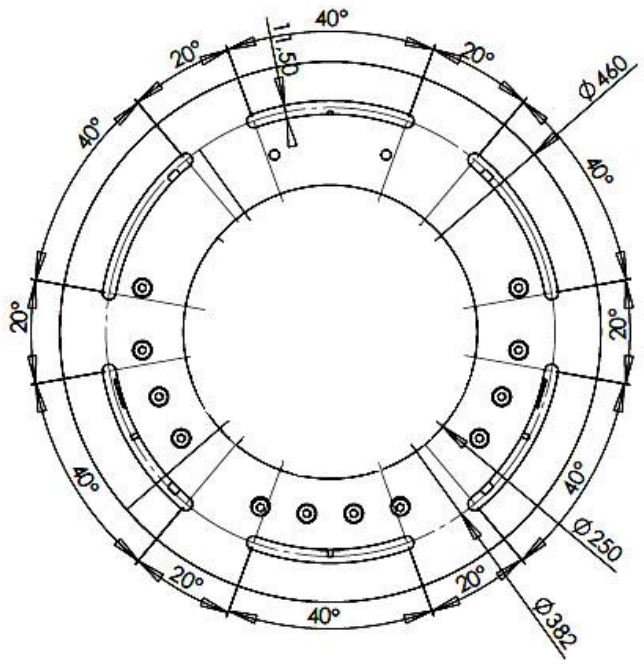
Antenna Packaging

Carton box
2.16 x 0.48 x 0.48 m
0.500 m^3 54 kg

Antenna Packaging

Carton box
1.5 x 0.48 x 0.48 m
0.345 m^3 40 kg

Mounting flange interface



wi-com solutions
Via Matilde Serao, 18 - 20832 DESIO (MB) Italy - Tel.+39-0362-1722878/1722877
e-mail: info@wicomsolutions.it - web: www.wicomsolutions.it

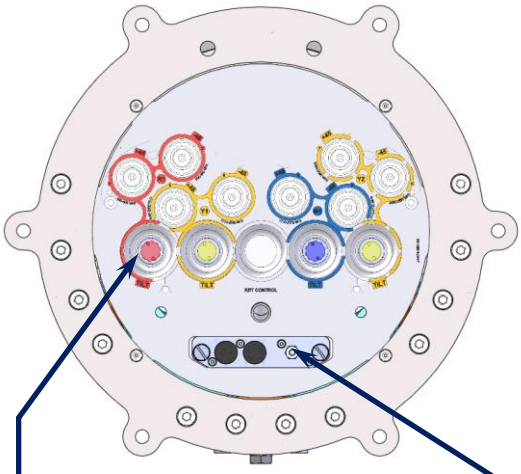
Project Design Requirement
Issue C 2015-06-17

CylLine Series

6888320-K03

6888320A-K03 6888320G-K03

Antenna bottom

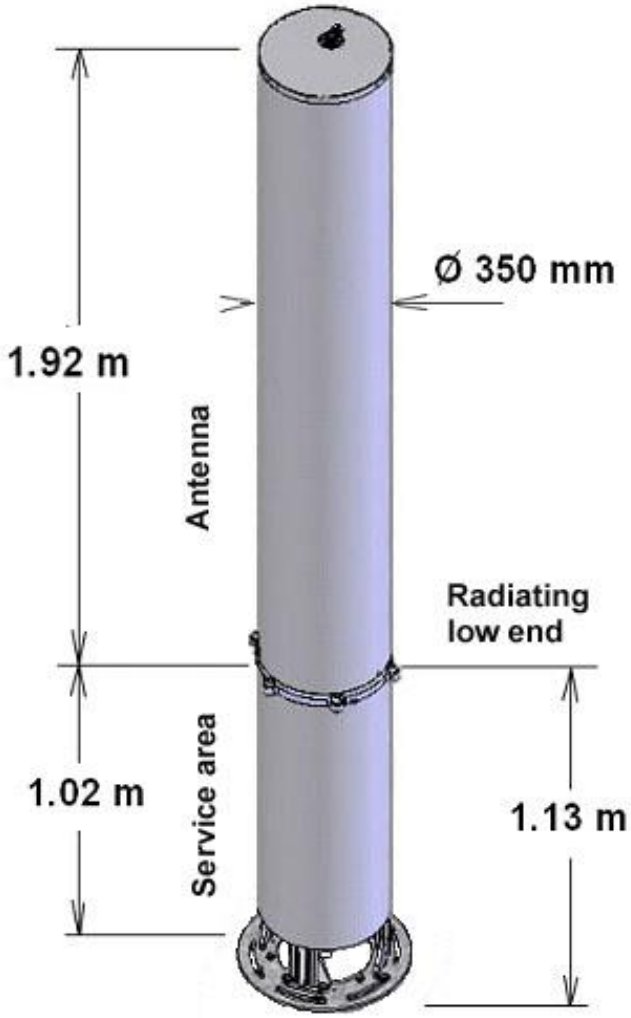


Location of the MDCU for RET control

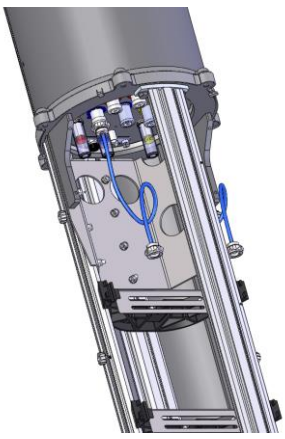
Four tilt indicators covered by a transparent cap. Manual adjustment and tilt reading are accessed by removing the cap. Knob colour is the same as connectors.

For RET control, the cap must be in place.

Dimensions



Service area (opened shroud)



wi-com solutions
Via Matilde Serao, 18 - 20832 DESIO (MB) Italy - Tel.+39-0362-1722878/1722877
e-mail: info@wicomsolutions.it - web: www.wicomsolutions.it