






6888370-C-K03

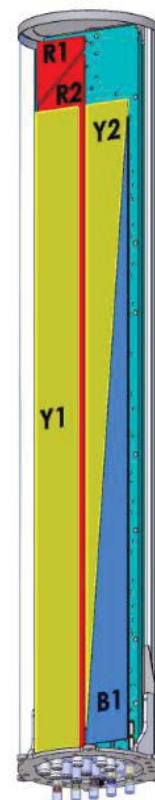
6888370N-C-K03 6888370G-C-K03 6888370NG-C-K03

5-Band, 10-Port, 65°, XPOL, Cylindrical Sector Antenna, Variable Tilt, CylLine, 1920 mm



- Penta band, Cylindrical base-mounted sector antenna, dual polarisation, 10 connectors
- 350 mm Diameter
- Same RF characteristics as our 6888370 antenna
- MET and RET versions, 3GPP/AISG2.0
- Service area under the antenna

| PRODUCT OVERVIEW | Frequency Range (MHz) | 698-788 | 880-960 | 1695-2180 | 1695-2690 | 2490-2690 |
|------------------|-------------------------|--|--|--|--|--|
| | Array |  R1 |  R2 |  B1 |  Y1 |  Y2 |
| | Connector | 1-2 | 3-4 | 5-6 | 7-8 | 9-10 |
| | Polarization | XPOL | XPOL | XPOL | XPOL | XPOL |
| | Azimuth Beamwidth (avg) | 65° | 65° | 65° | 65° | 65° |
| | Electrical Downtilt | 2-12° | 2-12° | 0-10° | 0-10° | 0-10° |
| | Dimensions | 1920 x Ø350 mm | | | | |



ORDERING OPTIONS

Select from the different options listed below

| SELECT ELECTRICAL DOWNTILT CONTROL & AISG PROTOCOL | SELECT ACTUATOR | SELECT CONNECTOR TYPE | ANTENNA MODEL NUMBER |
|--|----------------------------------|-----------------------|----------------------|
| Manual Electrical Tilt (MET) | --- | 4.3-10 Female | 6888370N-C-K03 |
| | | 7/16-DIN Female | 6888370-C-K03 |
| Remote Electrical Tilt (RET) AISG v2.0 / 3GPP | Multi-Device Control Unit (MDCU) | 4.3-10 Female | 6888370NG-C-K03 |
| | | 7/16-DIN Female | 6888370G-C-K03 |

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ELECTRICAL SPECIFICATIONS Ultra Low Band

R1

| | | | |
|---|----------|---------|------------|
| Frequency Range | | MHz | 698-788 |
| Polarization | | --- | ±45° |
| Gain | Min Tilt | dBi | 14.8 |
| | Mid Tilt | dBi | 14.8 |
| | Max Tilt | dBi | 14.5 |
| Azimuth Beamwidth | | degrees | 73° |
| Elevation Beamwidth | | degrees | 12° |
| Electrical Downtilt | | degrees | 2°-12° |
| Impedance | | Ohms | 50 |
| VSWR | | --- | < 1.5 |
| Passive Intermodulation 3rd Order for 2 x 20W Carriers | | dBm | < -110 |
| Front-to-Back Ratio, Total Power, ±30° | | dB | > 25 |
| Upper Sidelobe Suppression, 0° to 20° | | dB | 18 typical |
| Maximum Effective Power Per Port | | Watts | 250 W |
| Inter/Intra Band Isolation | | dB | > 25 |

ELECTRICAL SPECIFICATIONS Ultra Low Band

R2

| | | | |
|---|----------|---------|------------|
| Frequency Range | | MHz | 880-960 |
| Polarization | | --- | ±45° |
| Gain | Min Tilt | dBi | 16.0 |
| | Mid Tilt | dBi | 15.9 |
| | Max Tilt | dBi | 15.6 |
| Azimuth Beamwidth | | degrees | 67° |
| Elevation Beamwidth | | degrees | 9.4° |
| Electrical Downtilt | | degrees | 2°-12° |
| Impedance | | Ohms | 50 |
| VSWR | | --- | < 1.5 |
| Passive Intermodulation 3rd Order for 2 x 20W Carriers | | dBm | < -110 |
| Front-to-Back Ratio, Total Power, ±30° | | dB | > 25 |
| Upper Sidelobe Suppression, 0° to 20° | | dB | 18 typical |
| Maximum Effective Power Per Port | | Watts | 250 W |
| Inter/Intra Band Isolation | | dB | > 25 |

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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5-Band, 10-Port, 65°, XPOL, Cylindrical Sector Antenna, Variable Tilt, CyLLine, 1920 mm

ELECTRICAL SPECIFICATIONS Filtered Array (Y2)

■ B1

| | | | | |
|---|----------|---------|------------|------|
| Frequency Range | | MHz | 1695-2180 | |
| | | MHz | 1800 | 2100 |
| Polarization | | --- | ±45° | |
| Gain | Min Tilt | dBi | 17.2 | 17.5 |
| | Mid Tilt | dBi | 17.2 | 17.4 |
| | Max Tilt | dBi | 17.1 | 17.3 |
| Azimuth Beamwidth | | degrees | 69° | 67° |
| Elevation Beamwidth | | degrees | 6.0° | 5.1° |
| Electrical Downtilt | | degrees | 0°-10° | |
| Impedance | | Ohms | 50 | |
| VSWR | | --- | < 1.5 | |
| Passive Intermodulation 3rd Order for 2 x 20W Carriers | | dBm | < -110 | |
| Front-to-Back Ratio, Total Power, ±30° | | dB | > 25 | |
| Upper Sidelobe Suppression, 0° to 20° | | dB | 18 typical | |
| Maximum Effective Power Per Port | | Watts | 200 W | |
| Inter/Intra Band Isolation | | dB | > 25 | |

ELECTRICAL SPECIFICATIONS Ultra Wide Band

■ Y1

| | | | | | |
|---|----------|---------|------------|------|------|
| Frequency Range | | MHz | 1695-2690 | | |
| | | MHz | 1800 | 2100 | 2600 |
| Polarization | | --- | ±45° | | |
| Gain | Min Tilt | dBi | 17.5 | 17.7 | 17.9 |
| | Mid Tilt | dBi | 17.5 | 17.7 | 17.8 |
| | Max Tilt | dBi | 17.4 | 17.6 | 17.5 |
| Azimuth Beamwidth | | degrees | 68° | 70° | 72° |
| Elevation Beamwidth | | degrees | 6.1° | 5.3° | 4.2° |
| Electrical Downtilt | | degrees | 0°-10° | | |
| Impedance | | Ohms | 50 | | |
| VSWR | | --- | < 1.5 | | |
| Passive Intermodulation 3rd Order for 2 x 20W Carriers | | dBm | < -110 | | |
| Front-to-Back Ratio, Total Power, ±30° | | dB | > 25 | | |
| Upper Sidelobe Suppression, 0° to 20° | | dB | 18 typical | | |
| Maximum Effective Power Per Port | | Watts | 200 W | | |
| Inter/Intra Band Isolation | | dB | > 25 | | |

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ELECTRICAL SPECIFICATIONS Filtered Array (B1)

 **Y2**

| | | | |
|---|----------|---------|------------|
| Frequency Range | | MHz | 2490-2690 |
| Polarization | | --- | ±45° |
| Gain | Min Tilt | dBi | 17.6 |
| | Mid Tilt | dBi | 17.5 |
| | Max Tilt | dBi | 17.2 |
| Azimuth Beamwidth | | degrees | 61° |
| Elevation Beamwidth | | degrees | 4.1° |
| Electrical Downtilt | | degrees | 0°-10° |
| Impedance | | Ohms | 50 |
| VSWR | | --- | < 1.5 |
| Passive Intermodulation 3rd Order for 2 x 20W Carriers | | dBm | < -110 |
| Front-to-Back Ratio, Total Power, ±30° | | dB | > 25 |
| Upper Sidelobe Suppression, 0° to 20° | | dB | 18 typical |
| Maximum Effective Power Per Port | | Watts | 200 W |
| Inter/Intra Band Isolation | | dB | > 25 |

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ELECTRICAL DOWNTILT CONTROL

For multiband antennas, 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 colored knob at the end of the tilt indicator allows change of the tilt without need of a tool. The knob color is identical to the corresponding connector color. 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. *See details below and refer to the ordering options to see which actuators are available with this particular 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). **Do not remove the transparent cap(s) from the antenna.**

RET ACTUATOR

Amphenol's **RET-READY** antennas are delivered with the RET Actuator 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 ACTUATORS

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. The MDCU is factory installed. *Refer to the ORDERING OPTIONS for availability with this model*

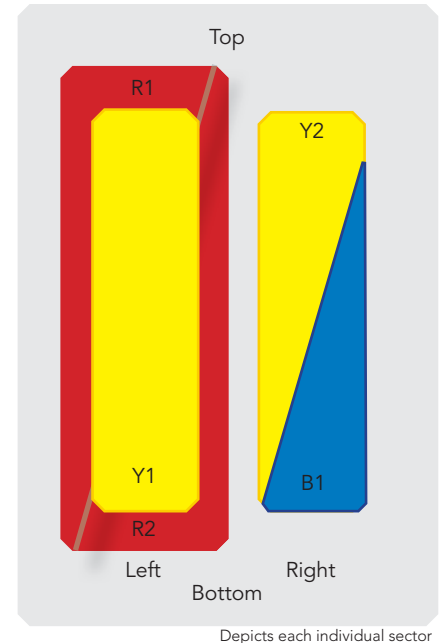
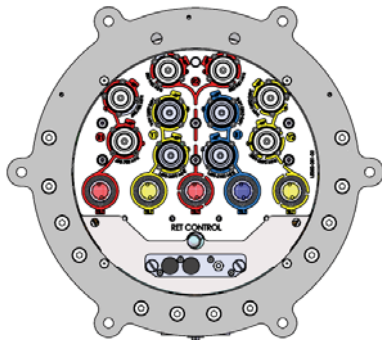
Multi-Device Dual Unit (MDDU). The MDDU allows two separate RET Controllers to independently drive the RETs in antennas with factory embedded motors (for antenna sharing or two technologies). The MDDU is factory installed. *Refer to the ORDERING OPTIONS for availability with this model.*

| | | |
|-------------------------------|------------|--|
| Number of RET-READY Actuators | | One per antenna |
| Input Voltage | | +10 to +30 V |
| Power Consumption | Idle State | 0.5 W |
| | Operating | 4 W typical / 10 W maximum |
| Protocol | | 3GPP/AISG 2.0 |
| Tilt Change Duration | | Less than 15 seconds, typical (may vary dependent on antenna type and outdoor temperature) |
| Precision | | ±0.5° |
| Tilt Change Capability | | 50,000 minimum |
| RET Interface | | 1 pair of AISG Male and Female (type IEC60130-9) |
| Field Replaceable Unit | | Yes |

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| ARRAY LAYOUT | ARRAY | FREQUENCY | CONNECTOR | CONNECTOR TYPE |
|--------------|-------|-----------|-----------|--|
| | R1 | 698-788 | 1-2 | 4.3-10 Female or 7/16-DIN Female Long Neck |
| | R2 | 880-960 | 3-4 | 4.3-10 Female or 7/16-DIN Female Long Neck |
| | B1 | 1695-2180 | 5-6 | 4.3-10 Female or 7/16-DIN Female Ultra Long Neck |
| | Y1 | 1695-2690 | 7-8 | 4.3-10 Female or 7/16-DIN Female Ultra Long Neck |
| | Y2 | 2490-2690 | 9-10 | 4.3-10 Female or 7/16-DIN Female Long Neck |

Diagram shown at right depicts the view from the front of the antenna.
The illustration is not shown to scale.

MECHANICAL SPECIFICATIONS

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.

| | | | | |
|--|---------------------|--|------------|---------------------------------------|
| Length | | | mm (in) | 1920 (75.6) |
| Diameter | | | mm (in) | 350 (13.8) |
| Net Weight | Total Weight | | kg (lbs) | 89 (196.2) |
| | Antenna Only | | kg (lbs) | 52 (114.6) |
| | Service Area | | kg (lbs) | 37 (81.6) |
| Windload (EN 1991-1-4:2005 using Wind Tunnel Coefficients) | Calculation | | km/h (mph) | 160 (99.4) |
| | Frontal | | N (lbf) | 915 (205.7) |
| Operational Wind Speed | | | km/h (mph) | 160 (99.4) |
| Survival Wind Speed | | | km/h (mph) | 200 (124.3) |
| Radome Color | | | --- | Gray RAL7035 |
| Radome Material | | | --- | Outdoor Plastic |
| Lightning Protection | | | --- | Direct Ground |
| Shipping | Antenna | Shipping Dimensions (Length x Width x Depth) | mm (in) | 2160 x 480 x 480 (85.0 x 18.9 x 18.9) |
| | | Shipping Weight | kg (lbs) | 59 (130.1) |
| | | Shipping Volume | m³ (ft³) | 0.5 (17.7) |
| | Extension Packaging | Shipping Dimensions (Length x Width x Depth) | mm (in) | 1500 x 480 x 480 (59.1 x 18.9 x 18.9) |
| | | Shipping Weight | kg (lbs) | 40 (88.2) |
| | | Shipping Volume | m³ (ft³) | 0.345 (12.2) |

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5-Band, 10-Port, 65°, XPOL, Cylindrical Sector Antenna, Variable Tilt, CyLLine, 1920 mm

ENVIRONMENTAL SPECIFICATIONS

| | | |
|----------------------------------|-----------|------------------------------|
| Environmental | --- | ETS 300 019 |
| Operating Temperature | ° C (° F) | -40° to +60° (-40° to +140°) |
| Product Environmental Compliance | --- | Product is RoHs Compliant |

PARTS SUPPLIED

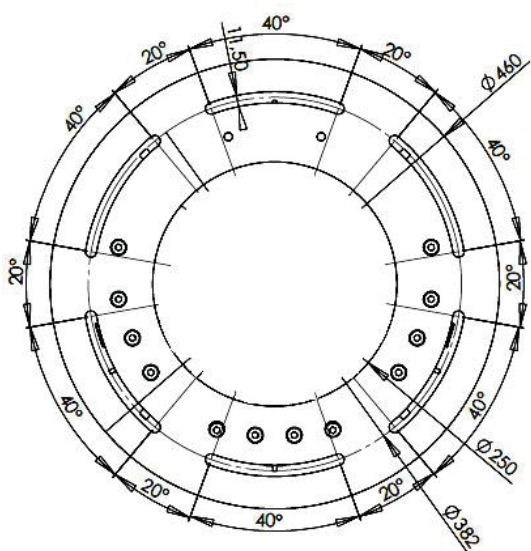
The supply list for this antenna includes: one antenna (6888370 or 6888370N); one service area of 1m length; all nuts, screws and washers required for assembly.

INSTALLATION OF CABLES

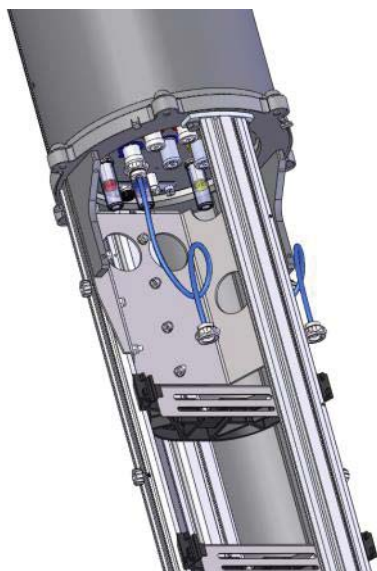
The flange at the base of the service area is the mounting base for the entire system. This flange (\varnothing_{ext} 460 mm / thickness 10 mm) has six slots, each 40° long on a bolt circle diameter of 382 mm. These slots are used to tune the azimuth of the antenna. Mounting must be achieved with one 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).

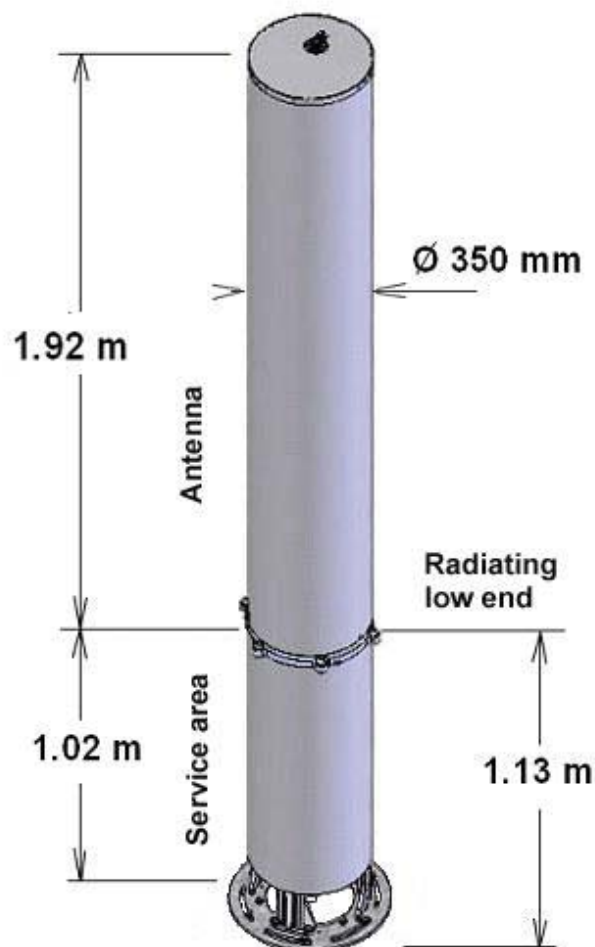
Mounting Flange Interface



Service Area (Opened Shroud)



Dimensions



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