

## A 2x2 MiMo LTE and WIFI multi purpose antenna for 2G/3G/4G/5G, CBRS and WIFI 6E 2.4/4.9-7.2 GHz with optional GNSS

### DESCRIPTION

- The ProConnect provides antennas for multiple technologies in fixed or mobile end-point device applications, using either Cellular or WiFi connectivity.
- Ideal for Industrial robotics and telemetry, smart metering, autonomous vehicles, smart cities and automated parking, backup and remote terminal data connections.
- In-built 2x2 MiMo antenna for use with LTE/4G (617 - 960 MHz and 1710 - 3800 MHz) or WiFi 6E 2.4/4.9-7.2 GHz.
- Optional GNSS antenna for GPS L1, Glonass, Beidou and Galileo.
- The ProConnect covers 4G, GNSS inc. 5G cellular bands, WIFI 2.4/5.8 and 7.2 GHz.
- Full hemispherical coverage for the GNSS antennas.
- Built-in high gain, low noise amplifier.
- Right-Hand Circular Polarization.
- 3 - 15 V DC for GNSS supply.
- Can be configured as 2in1, 3in1, 4in1 or 5in1.
- DC supply via GNSS RF-connector.
- ECE R118.02 approved cable.
- IP69 Ingress protection.
- IK10 rated enclosure.
- 5 m AP 195 Extension cables available.(P5 version)



### SPECIFICATIONS

| Electrical          |                                      |               |               |               |
|---------------------|--------------------------------------|---------------|---------------|---------------|
| Model               | ProConnect                           |               |               |               |
| Frequency           | 617 - 960 MHz                        | 1.7 - 2.7 GHz | 3.4 - 3.8 GHz | 4.9 - 7.2 GHz |
| Antenna Type        | Mobile Disk Style Antenna            |               |               |               |
| Max. Input Power    | 25 W                                 |               |               |               |
| Polarisation        | Vertical                             |               |               |               |
| Impedance           | 50 Ω                                 |               |               |               |
| Isolation           | > 6 dB                               | > 15 dB       | > 25 dB       | > 30 dB       |
| VSWR                | < 2.5:1                              | < 2.0:1       | < 2.0:1       | < 2.0:1       |
| EMC                 | Full protection (EN 301 489-1)       |               |               |               |
| Mechanical          |                                      |               |               |               |
| Compliance          | ECE R118.02 approved cables          |               |               |               |
| Connection(s)       | RG316 / RG178, SMA(m) (all antennas) |               |               |               |
| Materials           | ASA, Zamak 5                         |               |               |               |
| Installation Torque | 4 ±0.5 Nm                            |               |               |               |
| Colour              | Black (RAL 9005) or White (RAL 9010) |               |               |               |
| Dimensions          | ø 120 mm / 4.72 in.                  |               |               |               |
| Height              | 60 mm / 2.36 in.                     |               |               |               |
| Weight              | Approx. 550 g. / 1.2 lb.             |               |               |               |
| Mounting            | 18.5 mm / 0.8 in. dia. hole          |               |               |               |

| GNSS Antenna                       |                                                       |
|------------------------------------|-------------------------------------------------------|
| Cross Polar Discrimination (GNSS)  | > 10 dB (typ.)                                        |
| Frequency (GNSS)                   | 1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo) |
| Polarisation (GNSS)                | RH Circular                                           |
| Impedance (GNSS)                   | 50 Ω                                                  |
| GNSS LNA                           |                                                       |
| Gain (GNSS LNA)                    | 25 dB ±3 dB                                           |
| Noise Figure (GNSS LNA)            | < 3.5 dB : 1559 - 1610 MHz<br>Typ. 2.0 dB @ 1575 MHz  |
| Attenuation Out Of Band (GNSS LNA) | > 25 dB, 0 - 1525 MHz<br>> 25 dB, 1640 - 3000 MHz     |
| P1dB (GNSS LNA)                    | > 6 dBm                                               |
| VSWR (output) (GNSS LNA)           | < 2.0:1                                               |
| Supply Voltage (GNSS LNA)          | 3 - 15 V DC                                           |
| Current Consumption (GNSS LNA)     | 20 mA                                                 |
| Environmental                      |                                                       |
| Operating temperature range        | -50 °C to +75 °C                                      |
| Ingress Protection                 | IP69                                                  |
| Impact Protection                  | IK10                                                  |



ORDERING DESIGNATION

Use the guide below to assign the name of the ProConnect you would like to order.

| Model Name     | Cover color              | Mount option       | No. of GNSS                       | No. of LTE            | No. of WIFI antennas                                              | Cable length                                           |
|----------------|--------------------------|--------------------|-----------------------------------|-----------------------|-------------------------------------------------------------------|--------------------------------------------------------|
| ProConnect     | -W (White)<br>-B (Black) | -TH (Through hole) | Blank (No GNSS)<br>-G1 (1 x GNSS) | -L2 (2x LTE antennas) | Blank (No WIFI)<br>-W1 (1x WIFI antenna)<br>-W2 (2x WIFI antenna) | Blank (approx)<br>-P5 (5 m / 16')<br>*-P5U (5 m / 16') |
| Naming Example |                          |                    |                                   |                       |                                                                   |                                                        |
| ProConnect     | -W                       | -TH                | -G1                               | -L2                   | -W2                                                               | -P5                                                    |

\*Only available in the US (Extension cables are not ECE R118.02 or LSZH rated)

ProConnect-W-TH-G1-L2-W2-P5-S/S/RP-S

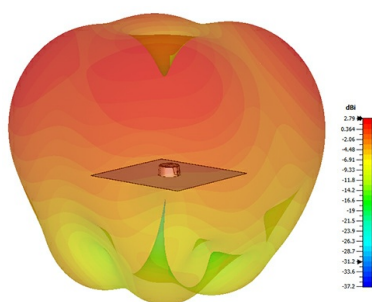
Note : P5 Extension cables are not attached to the Pig-tails.

GAIN TABLE

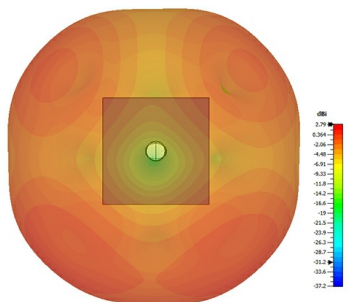
| Element    | Frequency (MHz) | Peak Gain (dBi) | Average Gain H-Plane |
|------------|-----------------|-----------------|----------------------|
| 4G/5G/WIFI | 650             | 1.0             |                      |
|            | 750             | 3.9             |                      |
|            | 900             | 4.1             |                      |
|            | 1800            | 5.4             |                      |
|            | 2400            | 6.9             |                      |
|            | 2600            | 7.7             |                      |
|            | 3600            | 7.5             |                      |
|            | 5500            | 7.1             |                      |
|            | 7100            | 8.9             |                      |

## RADIATION PATTERNS (CELLULAR ANTENNAS) 650 MHz - 2100 MHz

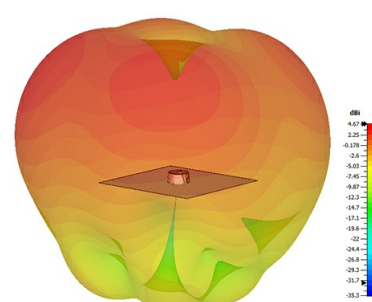
650 MHz, side view



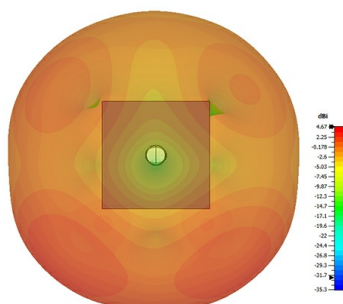
650 MHz, top view



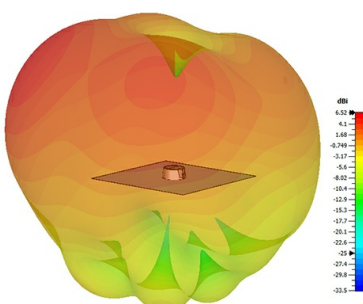
700 MHz, side view



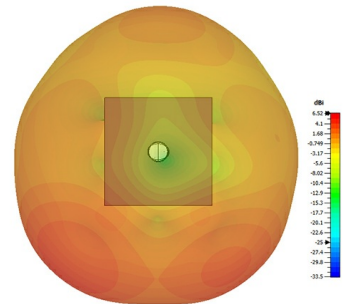
700 MHz, top view



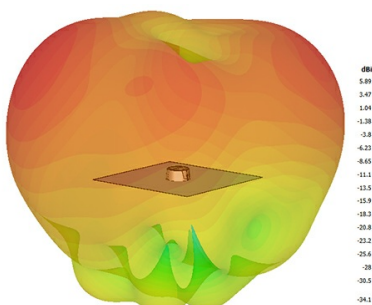
800 MHz, side view



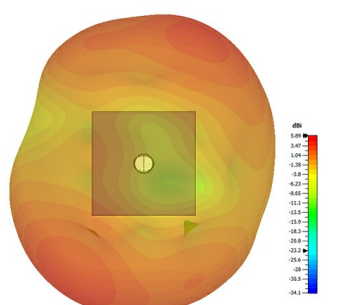
800 MHz, top view



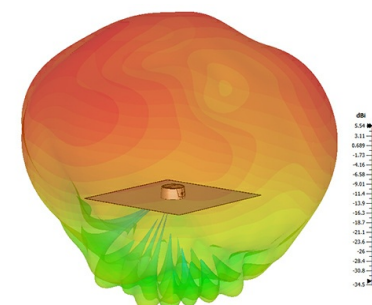
900 MHz, side view



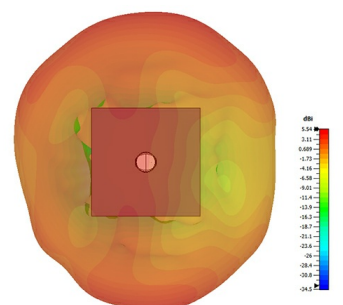
900 MHz, top view



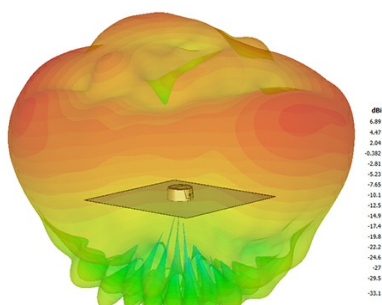
1800 MHz, side view



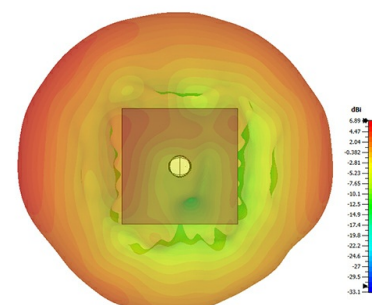
1800 MHz, top view



2100 MHz, side view

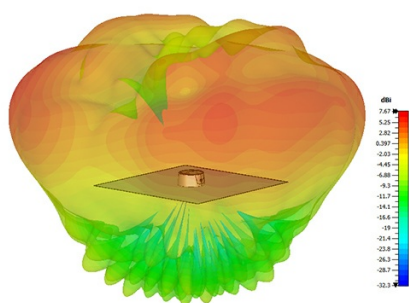


2100 MHz, top view

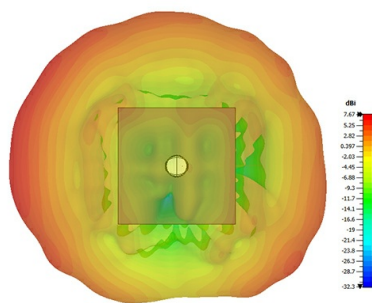


## RADIATION PATTERNS (CELLULAR ANTENNAS) 2600 MHZ - 7000 MHZ

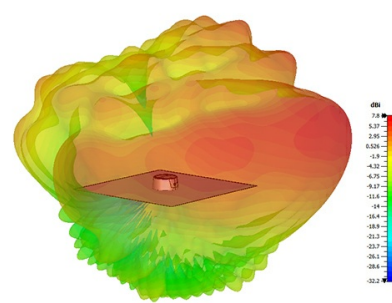
2600 MHz, side view



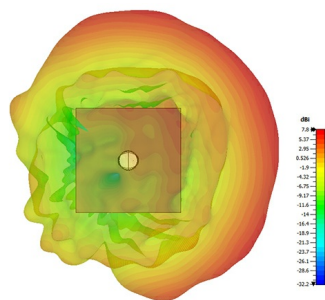
2600 MHz, top view



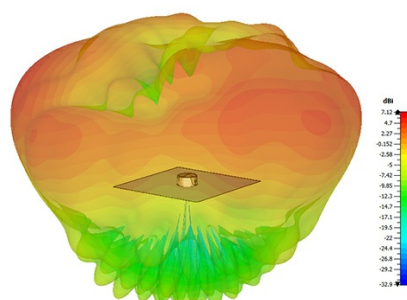
3600 MHz, side view



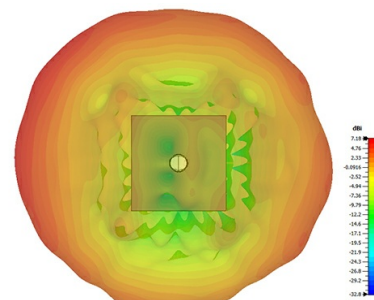
3600 MHz, top view



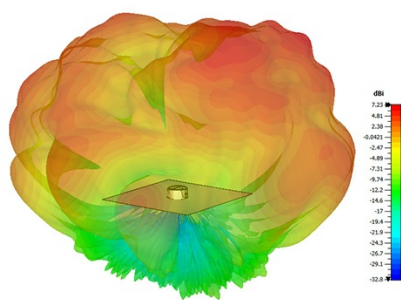
WIFI 2400 MHz, side view



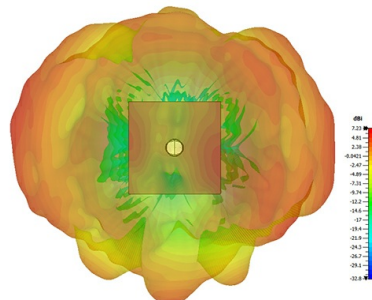
WIFI 2400 MHz, top view



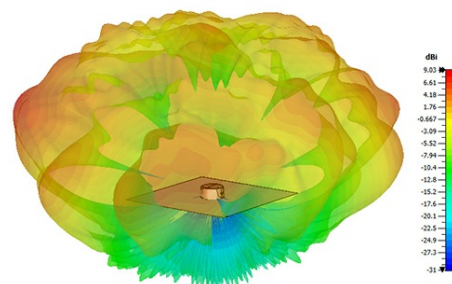
WIFI 5500 MHz, side view



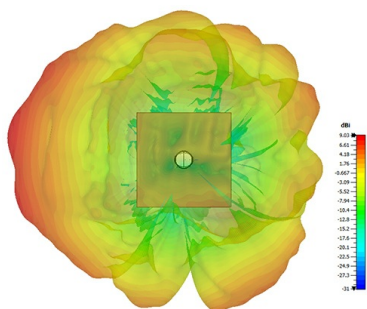
WIFI 5500 MHz, top view



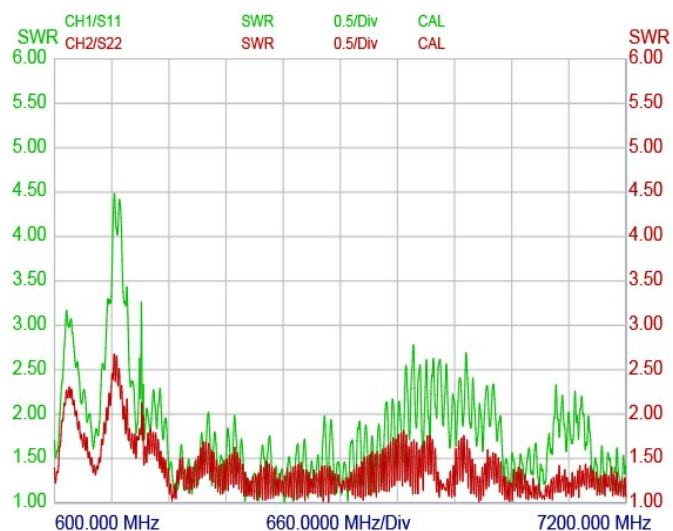
WIFI 7000 MHz, side view



WIFI 7000 MHz, top view



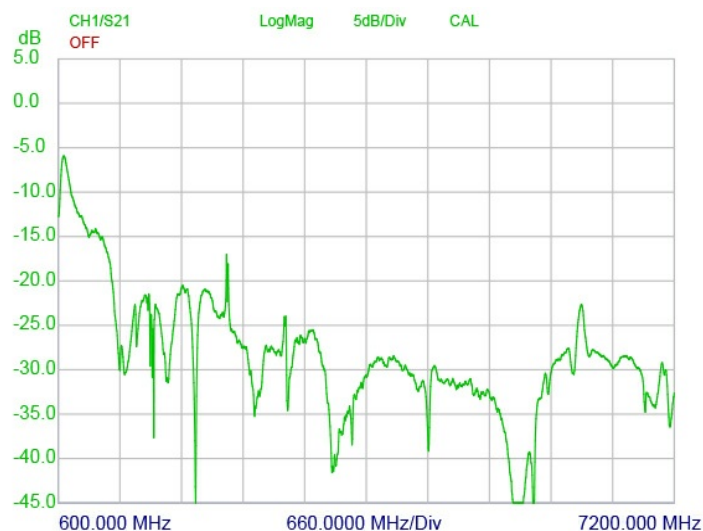
## VSWR 4G/5G ELEMENTS\*



\*Green trace measured with 1 m [39.4 in.] of RG58 cable.

Red trace measured with 3 m [118 in.] of RG58 cable on a 600 x 600 mm [23.6 x 23.6 in.] groundplane.

## TYPICAL ISOLATION 4G/5G ELEMENTS\*



\*Measured with no additional cable, on a 600 x 600 mm [23.6 x 23.6 in.] groundplane.

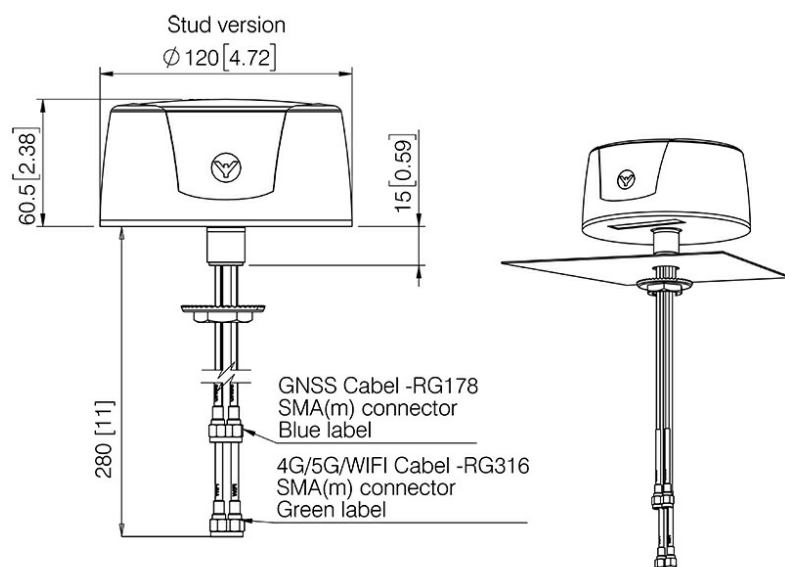
## EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type ProConnect is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206).  
The full text of the Declaration of Conformity is available at:

<https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-ProConnect.pdf>



## MECHANICAL OUTLINE

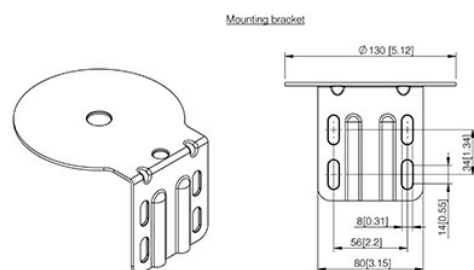


## Mounting instructions - stud version:

- Drill a 18.5-19 mm hole in the car roof
- Remove the cover foil for the gasket beneath the antenna.
- Pull the cables through the hole
- Place the antenna in the desired position.  
(note: The antenna can not be moved when the glue beneath the gasket touches the car roof.
- Tighten the combi nut with 24 mm spanner wrench.

Recommended torque: 5 Nm.

## MOUNTING ON BRACKET



## Stud mounted version - Wall mounting

The stud mounted version can be mounted on a bracket for wall mounting. Tighten the combi nut with 24 mm spanner wrench.

Recommended torque: 5 Nm.

Notice: Stud mounted version on bracket is not IP rated.

## Stud mounted version - Pole mounting

The stud mounted version can be mounted on a bracket for pole mast mounting. Tighten the combi nut with 24 mm spanner wrench.

Recommended torque: 5 Nm.

Notice: Stud mounted version on bracket is not IP rated.

