

A 4x4 MiMo LTE and 4x4 or 6x6 MiMo WIFI multi purpose 'Disk' antenna for GNSS, 2G/3G/4G/5G and WIFI 6E 2.4/4.9-7.2 GHz

DESCRIPTION

- Can be configured as 9in1, 10in1, 11in1, and 12in1
- In-built 4x4 MiMo LTE antenna (617 - 960 MHz and 1710 - 3800 MHz)
- 4x4 or 6x6 MiMo WiFi 6E 2.4/4.9-7.2 GHz
- GNSS antenna for GPS L1, Glonass, Beidou and Galileo.
- No diplexer needed.
- The ProNexus provides antennas for multiple technologies and multiband routers.
- The ProNexus 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 VDC for GNSS supply.
- DC supply via GNSS RF-connector.
- ECE R118.02 approved cable.
- IP69 Ingress protection.

SPECIFICATIONS

| Electrical              |                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| Model                   | ProNexus                                                                                                               |
| Frequency               | 4G/5G 4x4 MiMo: 617 - 960 MHz, 1710 - 3800 MHz<br>WIFI 4x4 or 6x6 MiMo: 2400 - 2500 MHz, 4900-7200 MHz                 |
| Antenna Type            | Mobile Disk Style Antenna                                                                                              |
| Max. Input Power        | 25 W                                                                                                                   |
| Polarisation            | Vertical                                                                                                               |
| Impedance               | 50 Ω                                                                                                                   |
| Gain (peak)             | 4G/5G 3dBi (617 - 960 MHz)<br>4G/5G 7dBi (1710 - 3800 MHz)<br>WIFI 7 dBi (2.4/5.8/7.2 GHz)                             |
| Isolation               | >10 dB for 617 - 960MHz<br>>20 dB for 1710 - 3800MHz<br>>15 dB for WiFi                                                |
| Correlation Coefficient | < 0.2 for 617 - 960 MHz<br>< 0.02 for 1710 - 3800 MHz<br>< 0.02 for WiFi                                               |
| VSWR                    | < 2.5:1 for 617 - 960 MHz<br>< 2.0:1 for 1710 - 3800 MHz<br>< 2.0:1 for 2400 - 2500 MHz<br>< 2.0:1 for 4900 - 7200 MHz |
| EMC                     | Full protection (EN 301 489-1)                                                                                         |



| Mechanical          |                                                                |
|---------------------|----------------------------------------------------------------|
| Compliance          | ECE R118.02 approved cables                                    |
| Connection(s)       | SMA(m) (all antennas)                                          |
| Materials           | ASA, Zamak 5                                                   |
| Installation Torque | 4 +/- 0.5 Nm                                                   |
| Colour              | Black (RAL 9005) / Traffic White (RAL 9010)                    |
| Dimensions          | 208 mm x 166 mm x 69 mm/ 8.19 in. x 6.5 in. x 2.7 in. (Approx) |
| Max. Roof Thickness | 3 mm / 0.12 in.                                                |
| Weight              | 1.04kg / 2.3 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 ±3dB                                           |
| 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 VDC                                             |
| Current Consumption (GNSS LNA)     | 20 mA                                                |

| Environmental               |                |
|-----------------------------|----------------|
| Operating temperature range | -50°C to +75°C |
| Ingress Protection          | IP69K          |

ORDERING

| Model               | Product No. | Description                                         |
|---------------------|-------------|-----------------------------------------------------|
| ProNexus W-G1-L4-W4 | 132000282   | 4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, White Cover |
| ProNexus W-G1-L4-W6 | 132000283   | 4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, White Cover |
| ProNexus W-G2-L4-W4 | 132000284   | 4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, White Cover |
| ProNexus W-G2-L4-W6 | 132000285   | 4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, White Cover |
| ProNexus B-G1-L4-W4 | 132000286   | 4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, Black Cover |
| ProNexus B-G1-L4-W6 | 132000287   | 4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, Black Cover |
| ProNexus B-G2-L4-W4 | 132000288   | 4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, Black Cover |
| ProNexus B-G2-L4-W6 | 132000289   | 4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, Black Cover |

PRODUCT MATRIX

| TYPE                | PRODUCT No. | DECRPTION                                             | 4G/5G<br>617 - 960 MHz<br>1710 - 3800 MHz | WIFI<br>2390 - 2485 MHz<br>4900 - 7200 MHz | GNSS 1 | GNSS 2 |
|---------------------|-------------|-------------------------------------------------------|-------------------------------------------|--------------------------------------------|--------|--------|
| ProNexus W-G1-L4-W4 | 132000282   | 4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, White Cover | ◆                                         | ◆                                          | ◆      |        |
| ProNexus W-G1-L4-W6 | 132000283   | 4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, White Cover | ◆                                         | ◆                                          | ◆      |        |
| ProNexus W-G2-L4-W4 | 132000284   | 4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, White Cover | ◆                                         | ◆                                          | ◆      | ◆      |
| ProNexus W-G2-L4-W6 | 132000285   | 4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, White Cover | ◆                                         | ◆                                          | ◆      | ◆      |
| ProNexus B-G1-L4-W4 | 132000286   | 4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, Black Cover | ◆                                         | ◆                                          | ◆      |        |
| ProNexus B-G1-L4-W6 | 132000287   | 4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, Black Cover | ◆                                         | ◆                                          | ◆      |        |
| ProNexus B-G2-L4-W4 | 132000288   | 4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, Black Cover | ◆                                         | ◆                                          | ◆      | ◆      |
| ProNexus B-G2-L4-W6 | 132000289   | 4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, Black Cover | ◆                                         | ◆                                          | ◆      | ◆      |

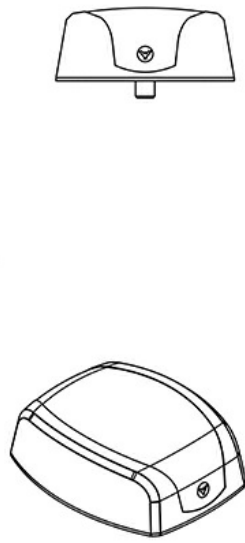
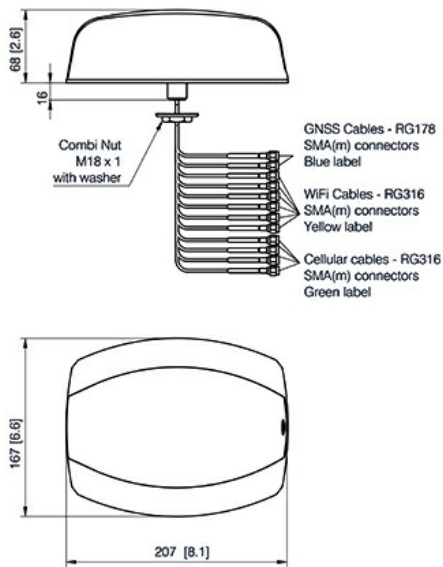
GAIN TABLE

| TYPE  | FREQUENCY (MHz) | PEAK GAIN (dBi) | AVERAGE GAIN H-PLANE (dBi) | AVERAGE GAIN H-PLANE (dBq) |
|-------|-----------------|-----------------|----------------------------|----------------------------|
| 4G/5G | 650             | 2.0             | -1.7                       | -1.0                       |
|       | 900             | 3.0             | -3.6                       | -2.0                       |
|       | 1800            | 4.0             | -4.1                       | -2.0                       |
|       | 2500            | 6.0             | -3.2                       | -1.0                       |
|       | 3600            | 6.0             | -2.5                       | 0.0                        |
|       |                 |                 |                            |                            |
| WIFI  | 2400            | 7.0             | -1.0                       | -2.0                       |
|       | 5500            | 7.0             | -3.0                       | -3.0                       |
|       | 7200            | 9.0             | -2.4                       | -2.0                       |

FAKRA CONNECTORS

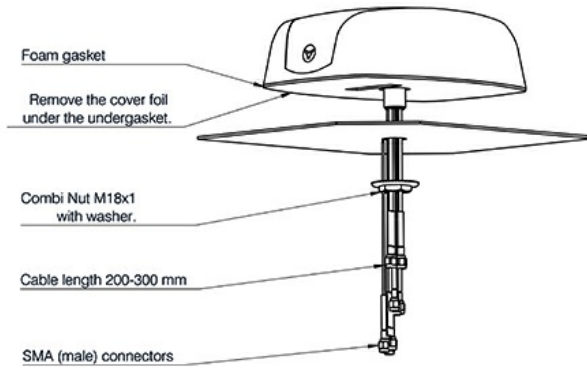
|                                                                                    |                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Amphenol RF FAKRA connectors are available for this product in standard key code configurations. Please contact us with configuration details for availability.</p> <p>FAKRA Connectors - RF Connectors   Amphenol RF</p> |
|                                                                                    |                                                                                                                                                                                                                              |

## MECHANICAL OUTLINE

Mounting instructions:

- 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 spanner wrench.

Recommended torque: 5 Nm.

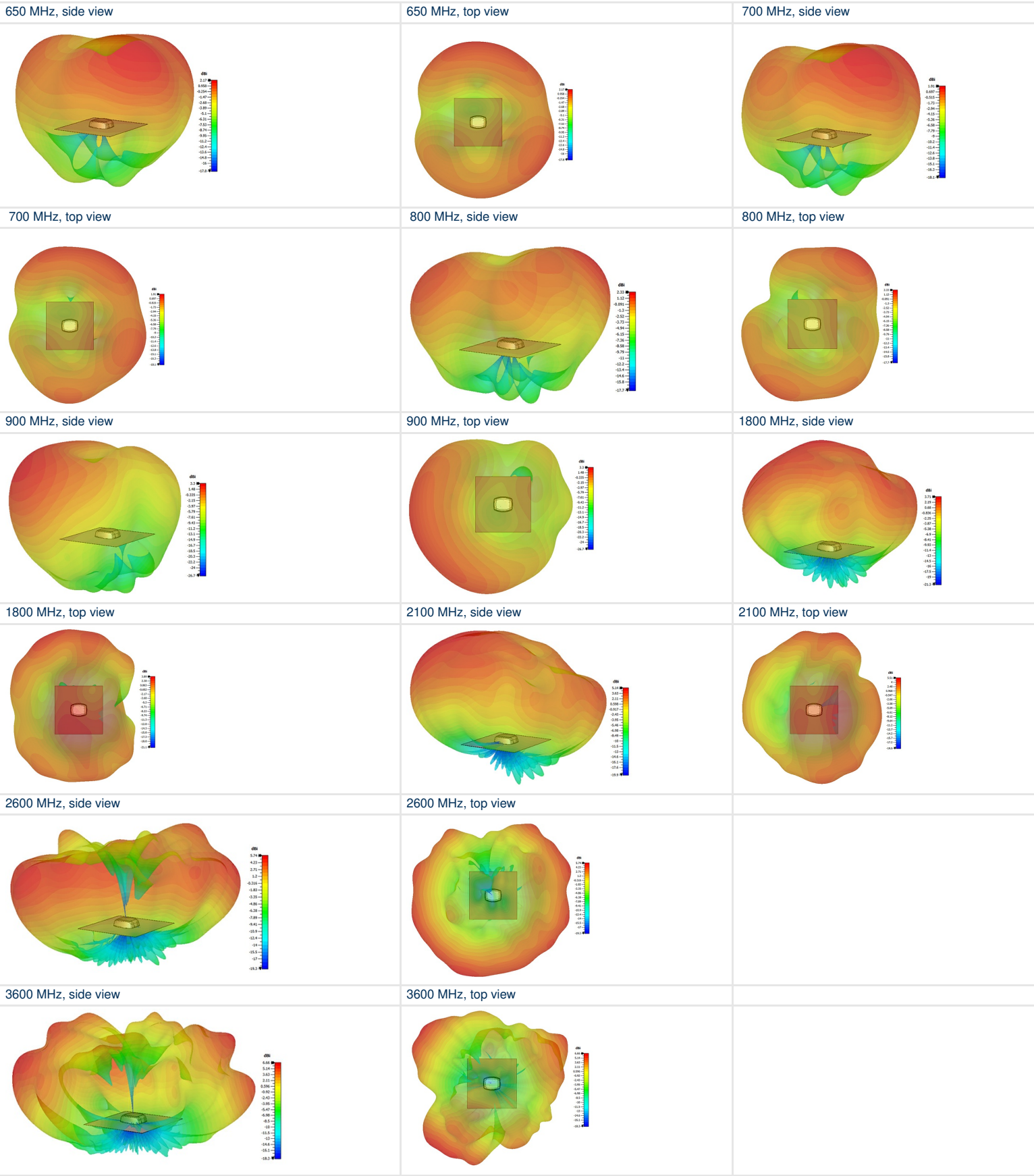


## EU AND UK DECLARATION OF CONFORMITY

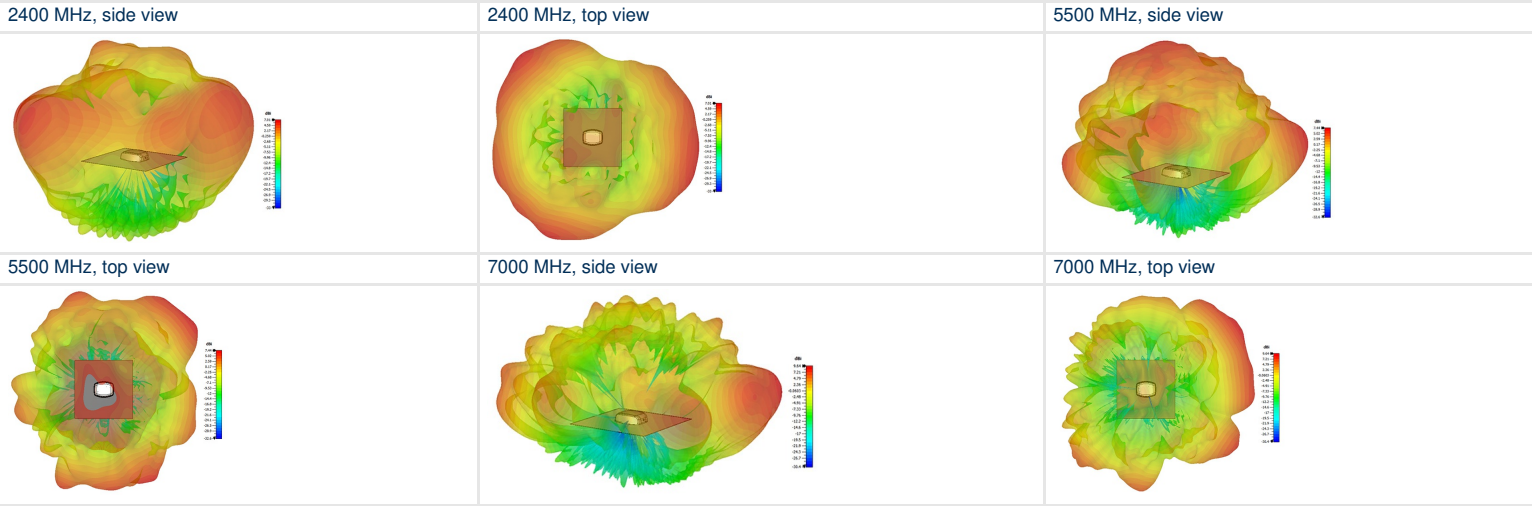
Hereby Amphenol Procom declare that the product type ProNexus is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206).  
The full text of the Declaration of Conformity is available at:

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

RADIATION PATTERNS (CELLULAR ANTENNAS)

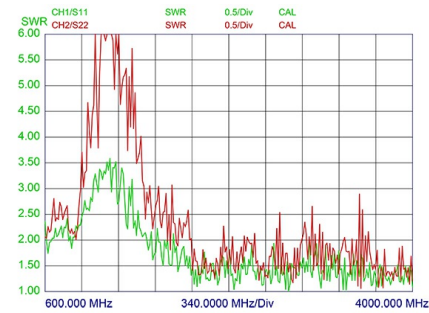


RADIATION PATTERNS (WIFI ANTENNAS)



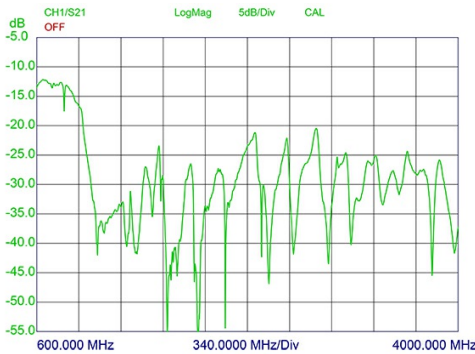
PERFORMANCE CURVES

Typical VSWR 4G/5G Elements\*



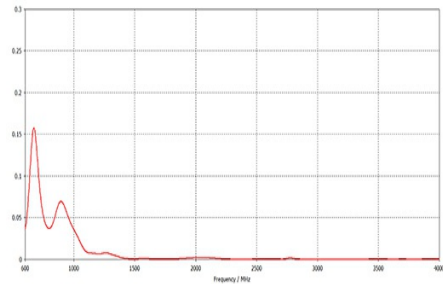
\*Red trace measured with 1m (39.4 In.) of RG58 cable. Green trace measured with 3m (118 In.) of RG58 cable on a 600 x 600 mm (23.6 x23.6 In.) groundplane.

Typical Isolation 4G/5G Elements\*



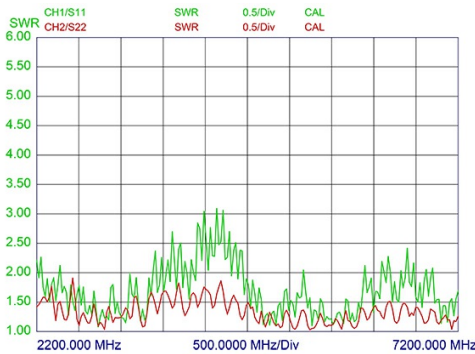
\*Measured with no additional cable, on a 600 x 600 mm (23.6 x 23.6 In.) groundplane.

Envelope Correlation Coefficient 4G/5G Elements\*



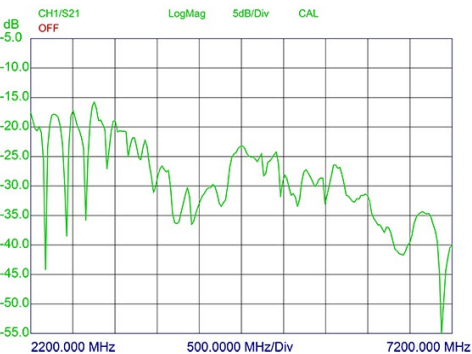
\*Simulated in free space with no additional cable.

Typical VSWR WiFi Elements\*



\*Green trace measured with 1m (39.4 In.) of RG58 cable. Red trace measured with 3m (118 In.) of RG58 cable on a 600 x 600 mm (23.6 x23.6 In.) groundplane.

Typical Isolation WiFi Elements\*



\*Measured with no additional cable, on a 600 x 600 mm (23.6 x 23.6 In.) groundplane.

