

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

Ready for orders in Q1 2022

DESCRIPTION

- > 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.
- > IP69K Ingress protection.



SPECIFICATIONS

Electrical	
Model	ProNexus
Frequency	4G/5G 4x4 MiMo: 617 - 960 MHz, 1710 - 3800 MHz 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) 4G/5G 7dBi (1710 - 3800 MHz) WIFI 7 dBi (2.4/5.8/7.2 GHz)
Isolation	>10 dB for 617 - 960MHz >20 dB for 1710 - 3800MHz >15 dB for WiFi
Correlation Coefficient	< 0.2 for 617 - 960 MHz < 0.02 for 1710 - 3800 MHz < 0.02 for WiFi
VSWR	< 2.5:1 for 617 -960 MHz < 2.0:1 for 1710 - 3800 MHz < 2.0:1 for 2400 - 2500 MHz < 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	Reinforced PA, Zamak 5
Installation Torque	4 +/- 0.5 Nm
Colour	Black (RAL 9005) / Traffic White (RAL 9016)
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	0.49kg / 1.08 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 Typ. 2.0 dB @ 1575 MHz
Attenuation Out Of Band (GNSS LNA)	> 25 dB, 0 - 1525 MHz > 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	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, White Cover
ProNexus W-G1-L4-W6	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, White Cover
ProNexus W-G2-L4-W4	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, White Cover
ProNexus W-G2-L4-W6	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, White Cover
ProNexus B-G1-L4-W4	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, Black Cover
ProNexus B-G1-L4-W6	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, Black Cover
ProNexus B-G2-L4-W4	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, Black Cover
ProNexus B-G2-L4-W6	Ready for orders in Q1 2022	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, Black Cover

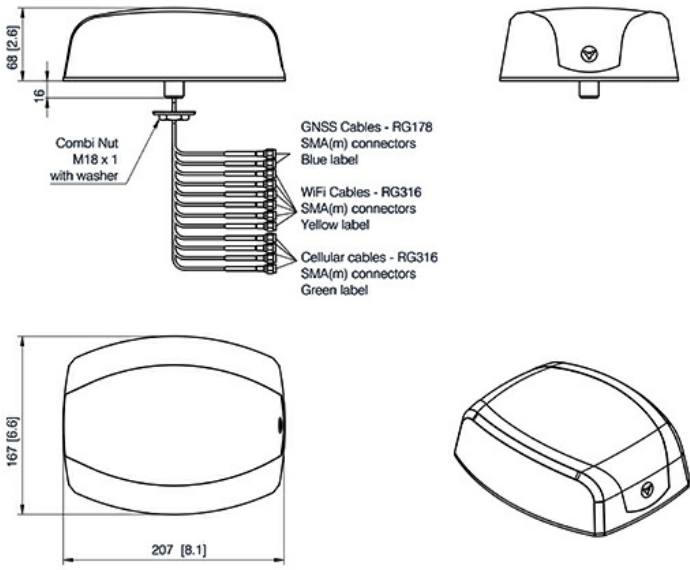
## PRODUCT MATRIX

TYPE	PRODUCT No.	DESCRIPTION	4G/5G 617 - 960 MHz 1710 - 3800 MHz	WIFI 2390 - 2485 MHz 4900 - 7200 MHz	GNSS 1	GNSS 2
ProNexus W-G1-L4-W4	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, White Cover	◆	◆	◆	
ProNexus W-G1-L4-W6	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, White Cover	◆	◆	◆	
ProNexus W-G2-L4-W4	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, White Cover	◆	◆	◆	◆
ProNexus W-G2-L4-W6	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, White Cover	◆	◆	◆	◆
ProNexus B-G1-L4-W4	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, Black Cover	◆	◆	◆	
ProNexus B-G1-L4-W6	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, Black Cover	◆	◆	◆	
ProNexus B-G2-L4-W4	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, Black Cover	◆	◆	◆	◆
ProNexus B-G2-L4-W6	Ready for orders in Q1 2022	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, Black Cover	◆	◆	◆	◆

## GAIN TABLE

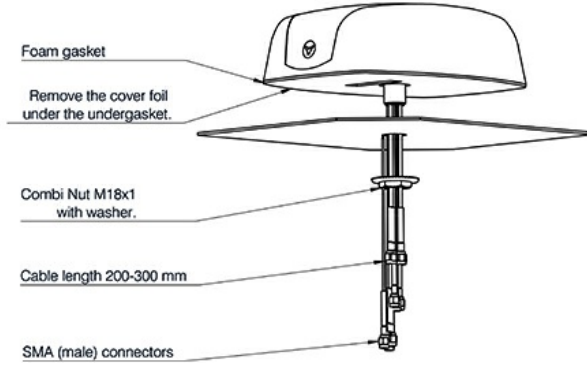
TYPE	FREQUENCY (MHz)	PEAK GAIN (dBi)	AVERAGE GAIN H-PLANE (dBi)	AVERAGE GAIN H-PLANE (dBq)
4G/5G	650	2.0		
	900	3.0	-1.7	-1.0
	1800	4.0	-3.6	-2.0
	2500	6.0	-4.1	-2.0
	3600	6.0	-3.2	-1.0
				-2.5
WIFI	2400	7.0	-1.0	-2.0
	5500	7.0	-3.0	-3.0
	7200	9.0	-2.4	-2.0

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.



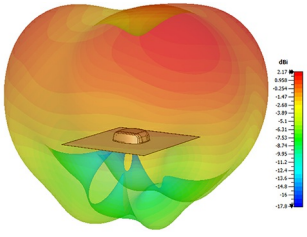
EU AND UK DECLARATION OF CONFORMITY

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:

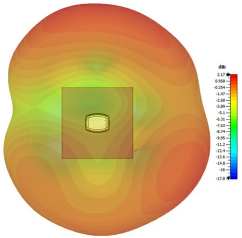
<https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-PRO-NEXUS.pdf>

RADIATION PATTERNS (CELLULAR ANTENNAS)

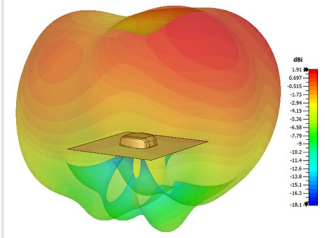
650 MHz, side view



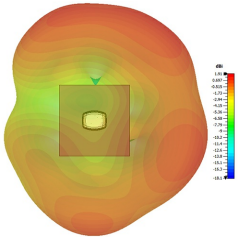
650 MHz, top view



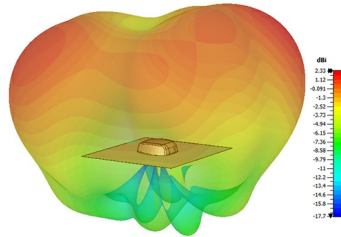
700 MHz, side view



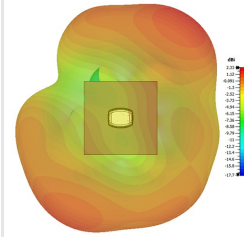
700 MHz, top view



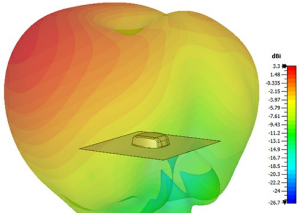
800 MHz, side view



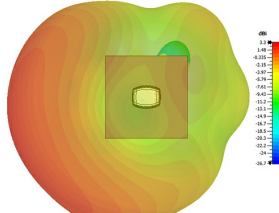
800 MHz, top view



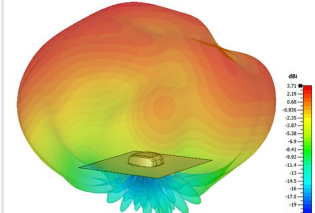
900 MHz, side view



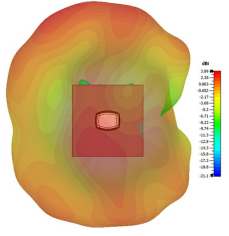
900 MHz, top view



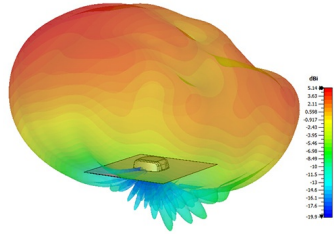
1800 MHz, side view



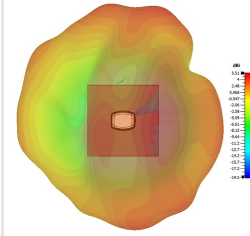
1800 MHz, top view



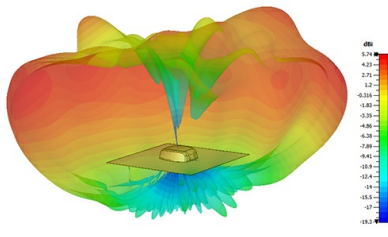
2100 MHz, side view



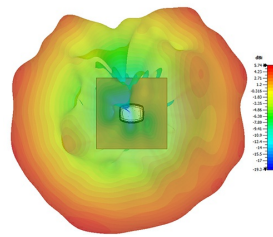
2100 MHz, top view



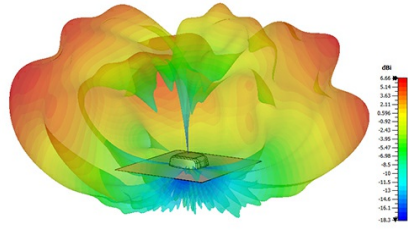
2600 MHz, side view



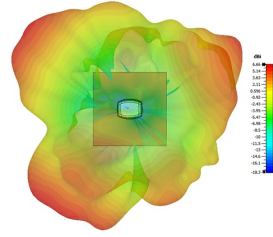
2600 MHz, top view



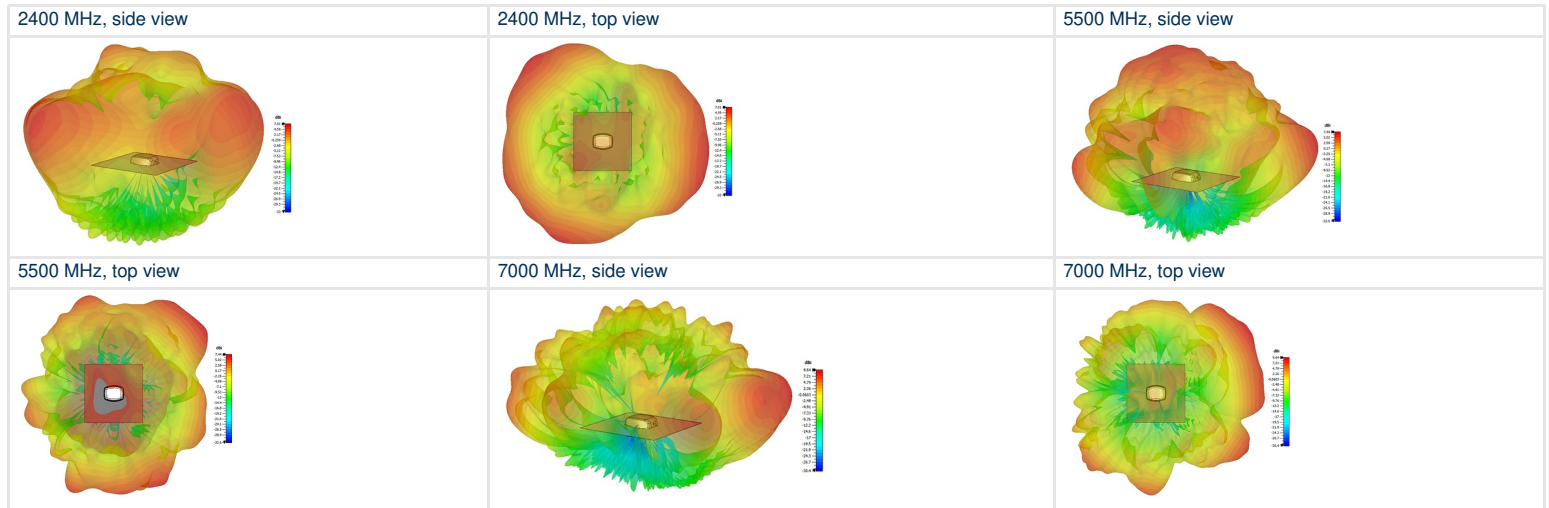
3600 MHz, side view



3600 MHz, top view

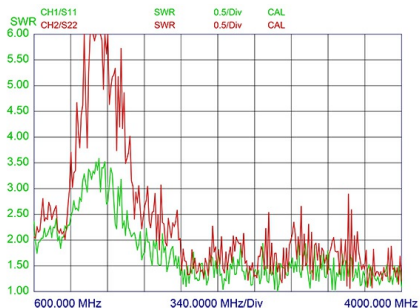


RADIATION PATTERNS (WIFI ANTENNAS)



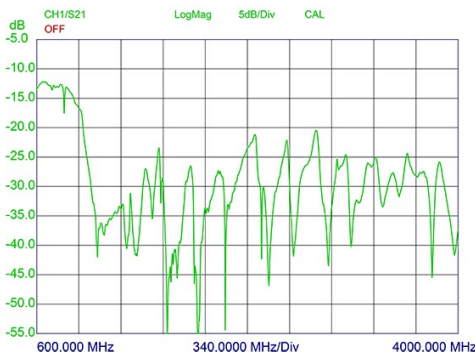
PERFORMANCE CURVES

Typical VSWR 4G/5G Elements\*



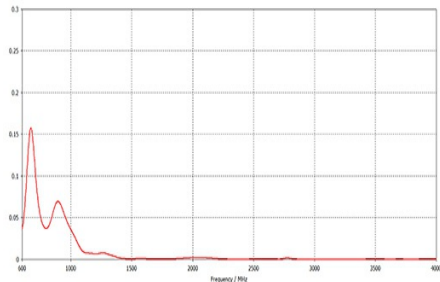
\*Red trace measured with 1m (39.4 In.) of RG58 cable. Green trace measured with 3m (118 In.) of RG58 cable on a 600 x 600 mm (23.6 x23.6 In.) groundplane.

Typical Isolation 4G/5G Elements\*



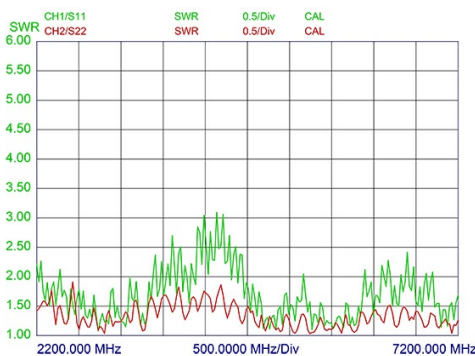
\*Measured with no additional cable, on a 600 x 600 mm (23.6 x 23.6 In.) groundplane.

Envelope Correlation Coefficient 4G/5G Elements\*



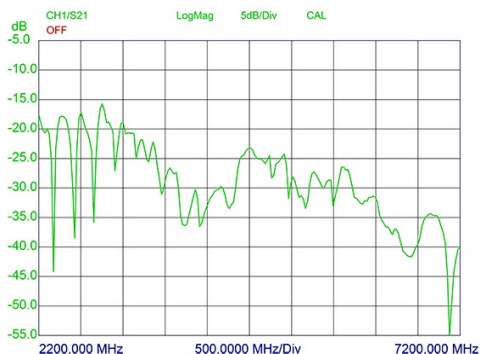
\*Simulated in free space with no additional cable.

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.

