

## About Amphenol Procom

At Amphenol Procom, we are committed to providing solutions that can be trusted no matter how extreme the environment, or how complex the complete networks solution might be. Our mission is simply to: *"deliver the world's most trusted and flexible solutions for professional wireless communication where connectivity and dependability are critical"*

Your network relies on the quality of its components; if one goes down, it can take the rest with it. That's why our products are built for quality and tested to the extreme - so that performance is not compromised under any circumstances. Amphenol Procom consists of the former Procom, Jaybeam and Skymast brands, that with manufacturing in Denmark and the UK serve a wide range of market segments such as Public Safety, Aviation, Telecom, Hazardous Environments, IOT, Transportation and Industry.

We have more than 7.000 products in our portfolio, mainly covering base station antennas, portable & mobile antennas, combiners, filters and DAS solutions.

Amphenol Procom is a division of the Amphenol Corporation, a \$8 billion-dollar organization that is one of the largest manufacturers of interconnect products in the world. The company designs, manufactures and markets electrical, electronic and fiber optic connectors, coaxial and flat-ribbon cable, and interconnect systems.



## ProFinPlus antenna

for Mobile network Convergence

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## ProFinPlus antenna for Mobile Network Convergence

Amphenol Procom is leading the way with communication and connectivity in mobile applications with the launch of the **ProFinPlus**.

Public Safety and Mission Critical networks are migrating to LTE, like FirstNet and ESN, connected vehicles need highly reliable wireless broadband connections which can support ultra-fast access to databases, voice, mapping or streaming video as part of a highly intelligent communication system.

At the very heart of this convergence is the antenna, it's the point at which data and voice is either received or transmitted. Multiple antennas in close proximity will interfere with one another, resulting in an overall reduction of system performance. The **ProFinPlus** eliminates the risk of interference by ensuring outstanding isolation between the embedded antennas. Furthermore, the **ProFinPlus** helps to reduce the cost of antenna installations by having several antenna features in one small form factor.

The **ProFinPlus** is indeed feature rich: Multi-Band – LTE coverage spanning 26 LTE frequencies bands. One product for a global LTE market with endless connectivity options, all supported by 2x2 MIMO. Close attention was made to the design of the LTE element, ensuring the best correlation coefficients to enhance data speeds in market.

Low band and high band Wi-Fi both 2x2 MIMO. Precision Geo-location is provided with GNSS and GPS.

The **ProFinPlus** is future proofed in the global market as 5G networks roll out. With 2x2 MIMO offered for 5G, up to 3.8 GHz, and 5G at 600 MHz, this antenna can easily manage in countries where 5G is already being implemented, like telco T-Mobile in the USA. As the router manufacturers start to release their latest 5G product, you will only ever need to swap out the router, not the antenna, as it already covers these 5G networks.

A wide range of accessories are also available. Options include the ability to add a separate whip antenna for VHF, UHF or DAB and a neat and tidy trunked cable extension system.

**ProFinPlus** is truly a state-of-the-art device for connectivity and communication for connected vehicles, future proof, feature rich and best in class.



Electrical	
Model	ProFin Plus
Frequency	WiFi 2x2 MiMo: 2300 - 2500 MHz, 5000 - 6000 MHz 5G/4G 617 - 960 MHz, 1710 - 3800 MHz
Antenna Type	Mobile Shark Fin Style Antenna
Polarisation	Vertical
Impedance	50 $\Omega$
Gain (peak)	4G/5G 4 dBi (617 - 960 MHz) 4G/5G 7 dBi (1710 - 3800 MHz) WiFi 6 dBi (2.4 GHz & 5.8 GHz)
Isolation (with 5 m RG58)	20 dB for 1710 - 3800 MHz 10 dB for 617 - 960 MHz WiFi > 10 dB
Correlation Coefficient	< 0.4 for 617 - 960 MHz < 0.1 for 1710 - 3800 MHz
VSWR	< 2.2:1 for 617 - 960 MHz < 2.0:1 for 1710 - 3800 MHz < 2.0:1 for 2400 - 2500 MHz < 2.0:1 for 5000 - 6000 MHz
Maximum Input Power	25 W for 4G/5G antenna 100 W for whip

Mechanical	
Connection(s)	SMA(m) (all antennas)
Materials	Reinforced PA, Zamak 5
Installation Torque	4 +/- 0.5 Nm
Colour	Black (RAL 9005)
Dimensions	Approx. 82 x 172 mm / 3.23 x 6.77 in.
Max. Roof Thickness	3 mm / 0.12 in.
Whip Connection	M6
Weight	0.26 kg / 0.57 lb
Mounting	18.5 mm / 0.8 in dia. hole Max roof curvature: 2.0 mm/0.08 in (on 142 mm)

GNSS Antenna	
P1dB (GNSS Amplifier)	Approx. +7 dBm
Noise Figure (GNSS Amplifier)	1.6 dB (typ.)
Cross Polar Discrimination (GNSS)	> 10 dB (typ.)
Gain (GNSS Amplifier)	28 dB (typ.) ic in axial direction (typ.)
Selectivity (GNSS)	> 25 dB down @ 0 - 1540 MHz > 27 dB down @ 1625 - 3000 MHz
VSWR (GNSS Amplifier)	<2.0:1
Frequency (GNSS)	1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo)
Power Supply (GNSS)	3 - 15 VDC
Current Consumption (GNSS Amplifier)	Approx. 20 mA
Polarisation (GNSS)	RH Circular
Impedance (GNSS)	50 $\Omega$

Environmental	
Operating Temperature Range	-50°C to +75° C
IP	IP67

GPS Antenna	
P1dB (GPS Amplifier)	Approx. +7 dBm
Noise Figure (GPS Amplifier)	< 1.5 dB (typical 1.1 dB)
Gain (GPS Amplifier)	22 dB $\pm$ 2 dB
Frequency (GPS)	1575 MHz
Power Supply (GPS)	3 - 15 VDC
Current Consumption (GPS Amplifier)	< 12 mA
Impedance (GPS)	50 $\Omega$

