

Eine 2x2 MiMo LTE und WIFI-Mehrweck-Haifischflossenantenne für GNSS, GPS, 2G/3G/4G/5G und duales WIFI, 2.4/5.8 GHz

BESCHREIBUNG

- > integrierte 2x2 MiMo LTE antenne (617-960 MHz and 1710-3800 MHz)
- > 2x2 MiMo Duales WiFi 2.4 and 5.8 GHz.
- > GNSS-Antenne für GPS L1, Glonass, Beidou und Galileo.
- > Unterstützt eine externe Peitschenantenne.
- > Kein Diplexer erforderlich.
- > Die ProFinPlus bietet Antennen für viele verschiedene Technologien.
- > Die ProFinPlus deckt , 4G, GNSS, GPS L1, inc. 5G Zellulärbander, duales WIFI 2.4 und 5.8 GHz und eine optionale Peitschenantenne ab.
- > The ProFinPlus unterstützt eine Peitschenantenne im Bereich 66 - 6000 MHz.
- > Alle ProFinPlus-Konfigurationen sind auf eine externe Peitschenantenne ausgelegt.
- > Für die Autowäsche einfach abzunehmende Antenne.
- > Vollständige hemisphärische Deckung von GNSS und GPS.
- > Integrierter rauscharmer High-Gain-Verstärker.
- > Rechtsdrehend zirkulare Polarisation (RHCP).
- > 3 - 15 VDC für GNSS-Versorgung.
- > Gleichstromversorgung über GNSS RF-Stecker.
- > Modell mit optionalem GPS.



SHOWN WITH OPTIONAL EXTERNAL WHIP.



SPEZIFIKATIONEN

Elektrisch DE	
Modell	ProFin Plus
Frequenz	4G/5G 2x2 MiMo: 617 - 960 MHz, 1710 - 3800 MHz WiFi 2x2 MiMo: 2400 - 2500 MHz, 5000 - 6000 MHz
Antennentyp	Mobile Shark Fin Style Antenna
Max. Eingangsleistung	25 W for 4G/5G and WIFI 100 W for whip
Polarisation	Vertikal
Impedanz	50 Ω
Gewinn (max.)	4G/5G 4dBi (617 - 960 MHz) 4G/5G 7dBi (1710 - 3800 MHz) WiFi 6 dBi (2.4 GHz & 5.8 GHz)
Isolierung	0 dB
Korrelationskoeffizient	< 0.4 for 617 - 700 MHz < 0.25 for 700 - 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

Mechanisch DE	
Anschlussyp	SMA(m) (all antennas)
Materialien	Reinforced PA, Zamak 5
Installationsmoment	4 +/- 0.5 Nm
Farbe	Schwarz (RAL 9005)
Abmessungen	ca. 83 x 173 mm
Maximale Dachdicke	3 mm
Peitschenanschluss	M6
Höhe	66 mm
Gewicht	0.35 kg
Montage	18.5 mm / 0.8 in. dia. hole Max roof curvature: 2.0 mm / 0.08 in. (on 173mm)

Umwelt	
Betriebstemperaturbereich	-50°C to +75°C
Wasserbeständigkeit	IP67

GPS-Antenne	
P1dB (GPS-Verstärker)	Approx. +7 dBm
Lärmfigur (GPS-Verstärker)	< 1.5 dB (typical 1.1 dB)
Gewinn (GPS-Verstärker)	22 dB ± 2 dB
Selektivität (GPS-Verstärker)	> 25 dB down @ 0 - 1535 MHz > 25 dB down @ 1635 - 3000 MHz
VSWR (GPS-Verstärker)	< 2.0:1
Frequenz (GPS)	1575 MHz
Stromversorgung (GPS)	3 - 15 VDC
Stromaufnahme (GPS-Verstärker)	< 12 mA
Polarisierung (GPS)	
Impedanz (GPS)	50 Ω

GNSS-Antenne	
P1dB (GNSS-Verstärker)	Approx. +7 dBm
Lärmfigur (GNSS-Verstärker)	1.6 dB (typ.)
Kreuz Polar Diskriminierung (GNSS)	> 10 dB (typ.)
Gain (GNSS-Verstärker)	28 dB (typ.) ic in axial direction (typ.)
Selektivität (GNSS-Verstärker)	> 25 dB down @ 0 - 1540 MHz > 27 dB down @ 1625 - 3000 MHz
VSWR (GNSS-Verstärker)	< 2.0:1
Frequenz (GNSS)	1559 - 1609 MHz
Stromversorgung (GNSS)	3 - 15 VDC
Stromaufnahme (GNSS-Verstärker)	Approx. 20 mA
Polarisierung (GNSS)	RH Rundschreiben
Impedanz (GNSS)	50 Ω

BESTELLUNG

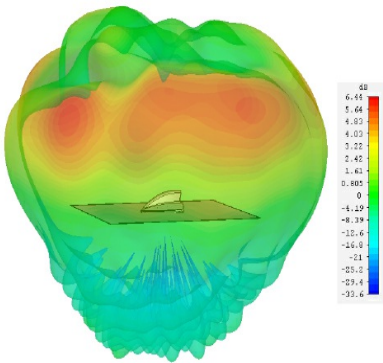
Modell	Produkt Nr	Beschreibung
ProFin Plus G1	130002476	2 x 4G/5G, 2 x WiFi, GNSS
ProFin Plus G2	132000269	2 x 4G/5G, 2 x WiFi, GNSS, GPS (L1)
Accessories - Whips		
MP-SS-S/FM whip	132000244	Stainless steel whip with shock spring.
MP-SS-S/DAB whip	132000260	Stainless steel whip with shock spring.
Accessories - Cables		
3m SMA(f)-BNC(m)	130002416	
4m SMA(f)-BNC(m)	130002417	
5m SMA(f)-BNC(m)	130002418	
3m SMA(f)-TNC(m)	130002421	
4m SMA(f)-TNC(m)	130002422	
5m SMA(f)-TNC(m)	130002423	
3m SMA(f)-SMA(m)	130002426	
4m SMA(f)-SMA(m)	130002427	
5m SMA(f)-SMA(m)	130002428	
Accessories - Adaptors		
SMA(f)-N(m)	130002429	
SMA(f)-BNC(m)	130002430	
SMA(f)-TNC(m)	130002431	
SMA(f)-SMB(m)	130002432	

WHIP MODELLS

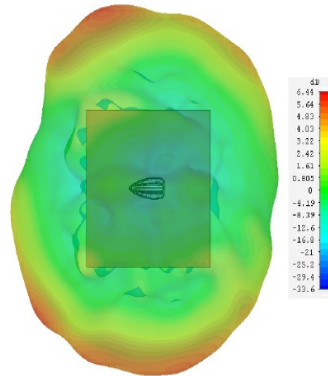


RADIATION PATTERNS

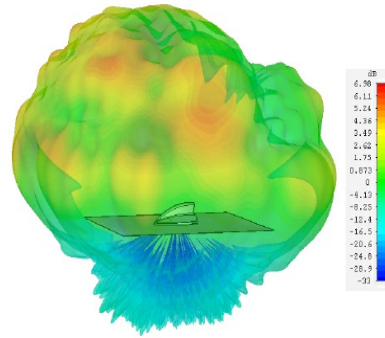
WIFI-element 2400MHz, side view



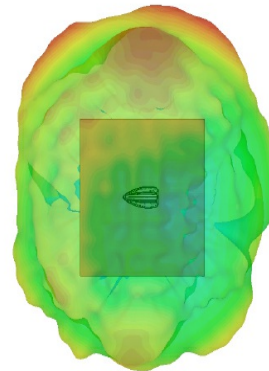
WIFI-element 2400MHz, top view



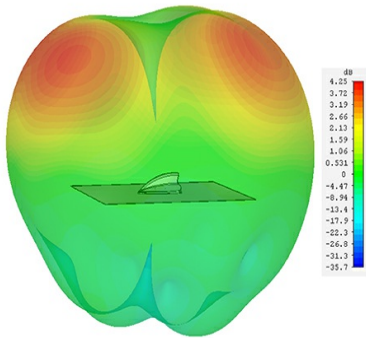
WIFI-element 5500MHz, side view



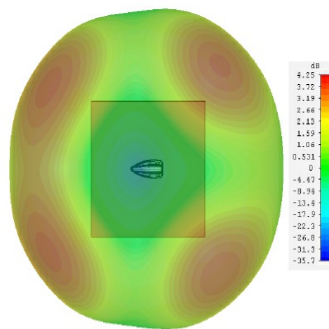
WIFI-element 5500 MHz, top view



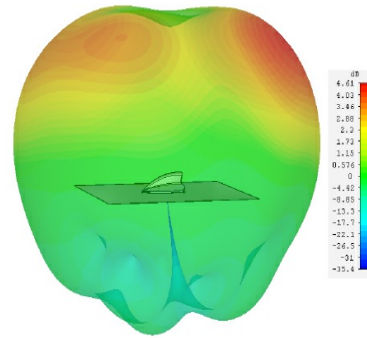
4G/5G-element 650 MHz, side view



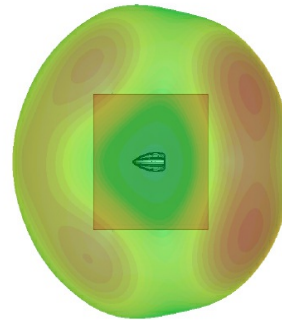
4G/5G-element 650 MHz, top view



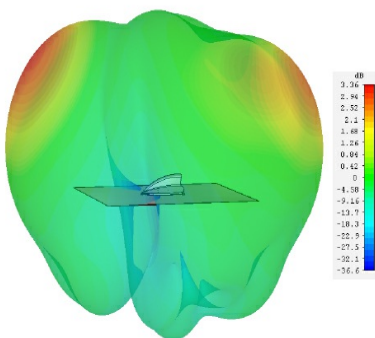
4G/5G-element 700 MHz, side view



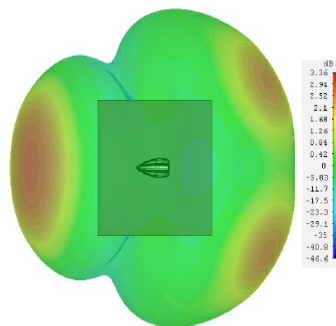
4G/5G-element 700 MHz, top view



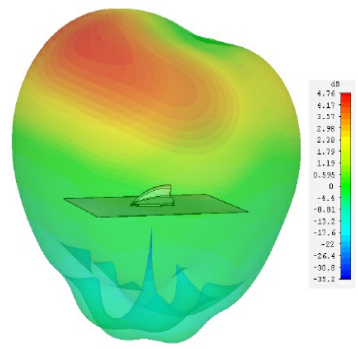
4G/5G-element 800 MHz, side view



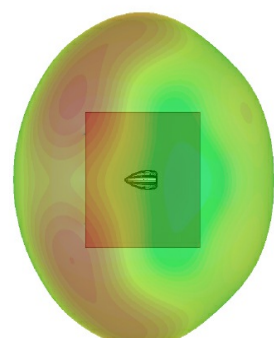
4G/5G-element 800 MHz, top view



4G/5G-element 900 MHz, side view



4G/5G-element 900 MHz, top view

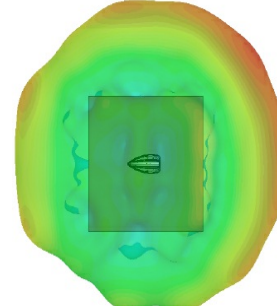
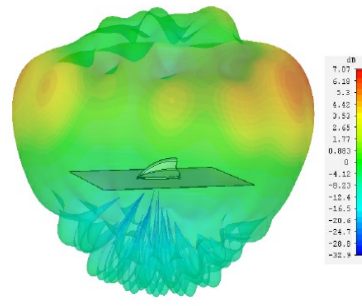
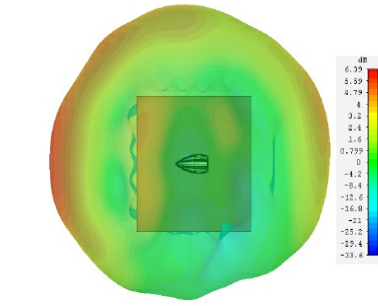
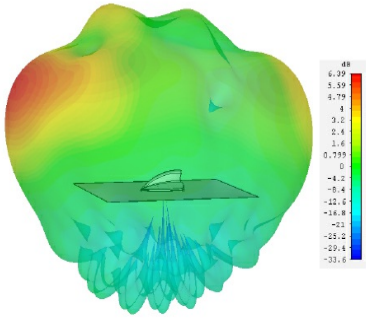


4G/5G-element 1800 MHz, side view

4G/5G-element 1800 MHz, top view

4G/5G-element 2100 MHz, side view

4G/5G-element 2100 MHz, top view

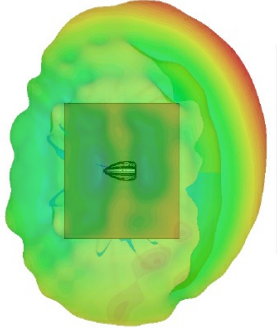
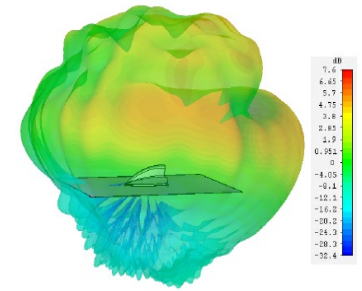
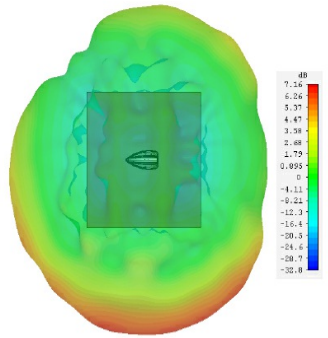
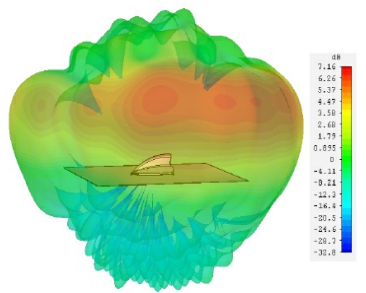


4G/5G-element 2600 MHz, side view

4G/5G-element 2600 MHz, top view

4G/5G-element 3600 MHz, side view

4G/5G-element 3600 MHz, top view



GAIN TABLE FOR IN-BUILT ANTENNAS

TYPE	FREQUENCY (MHz)	AVERAGE PEAK GAIN (dBi)	AVERAGE GAIN H-PLANE (dBi)	AVERAGE GAIN H-PLANE (dBq) *
4G/5G	650	4.0		
	900	5.0	-1.0	-1.0
	1800	6.0	-2.0	-1.0
	2500	7.0	-2.0	-1.0
	3600	7.0	-1.0	0.0
				-1.0
WIFI	2400	6.0	-3.0	-2.0
	5500	7.0	-2.0	-3.0

* According to TIA-329.2-C

ORDERING DESIGNATIONS - WHIP MATRIX

TYPE	DESCRIPTION	FM 88-108 MHz	VHF 144..240 MHz	UHF 380..470 MHz	UHF (Gain) 380..470 MHz
MP-SS-S/FM whip	Stainless steel whip with shock spring.	◆			
MP-SS-S/150 whip	Stainless steel whip with shock spring.	◆	◆		
MP-SS-S/DAB whip	Stainless steel whip with shock spring.	◆	◆		
MP-B/450/...whip	Flexible whip (0 dB acc. to TIA-329.2-C)			◆	
MP-SS/450-4/...whip	Stainless steel collinear whip (4 dB acc. to TIA-329.2-C)				◆
MP-G-S/150/450/.../...whip	Flexible whip with shock spring (factory adjusted)		◆	◆	
MP-G-S/450/FM/... whip	Flexible whip with shock spring (factory adjusted)	◆		◆	

For more information we refer to the corresponding whip datasheets. The in-built antennas can be used without an external ground-plane, but with degraded electrical performance.

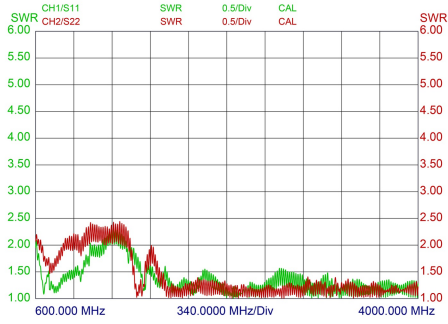
ORDERING DESIGNATIONS - MOUNT MATRIX

TYPE	PRODUCT NO.	DESCRIPTION	2G/3G/4G/5G 617 - 960 1710 - 3800 MHz	WIFI 2400 - 2500 5000 - 6000 MHz	GNSS	GPS L1
ProFin Plus G1	132000269	2 x 4G/5G, 2 x WIFI, GNSS	◆	◆	◆	
ProFin Plus G2	132000269	2 x 4G, 2 x WIFI, GNSS, GPS	◆	◆	◆	◆

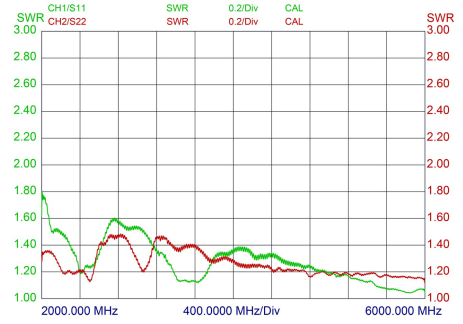
We recommend not to use the in-built UHF antenna in combination with an external whip, since its performance will be degraded.

TYPICAL VSWR CURVES

Typical VSWR Curves 4G_5G *

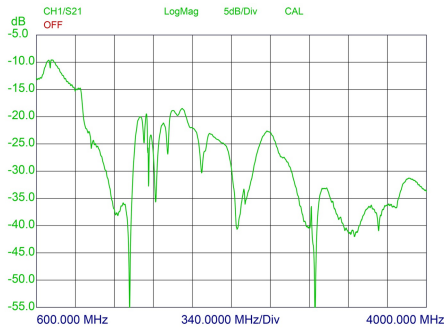


Typical VSWR Curves WIFI 2.4 GHz *



Typical Isolation Curves

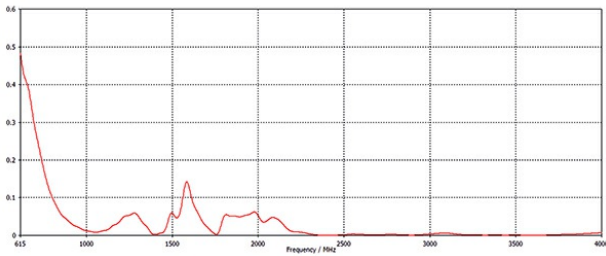
Isolation 2x 4G_5G *



Isolation 2x WFI *

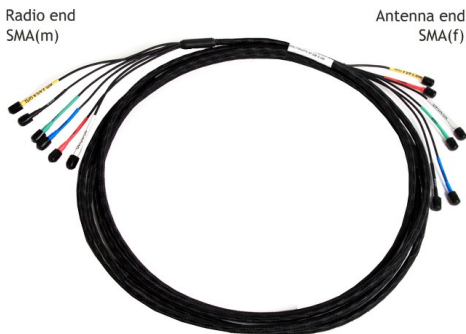


Envelope Correlation Coefficient



* VSWR measured with no whip and 5 m (197 in.) of RG 58 cable on a 500 x 500 mm (19.6 in. x 19.6 in.) ground plane.

ACCESSORIES - CABLES



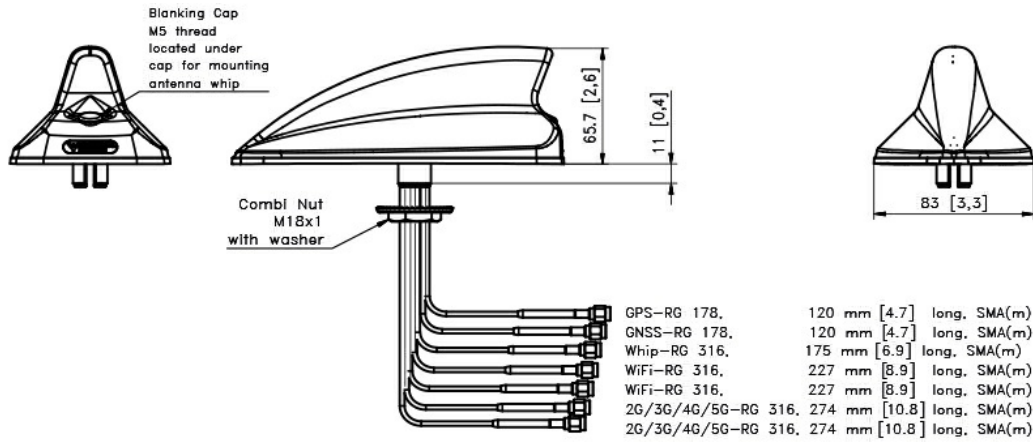
5 m ProFin Cable Kit.
7 pcs. RG 174 cables in one cable bundle (ø9 mm).
Provides ease of installation.

EU DECLARATION OF CONFORMITY

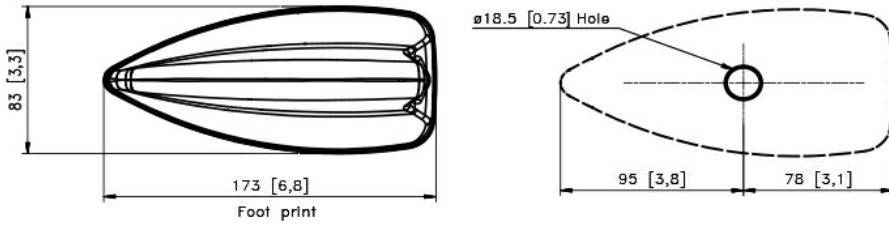
Hereby Amphenol Procom declare that the product type ProFin is in compliance with EU Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at:

<http://procom.dk/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-ProFin.pdf>

MOUNTING DETAILS

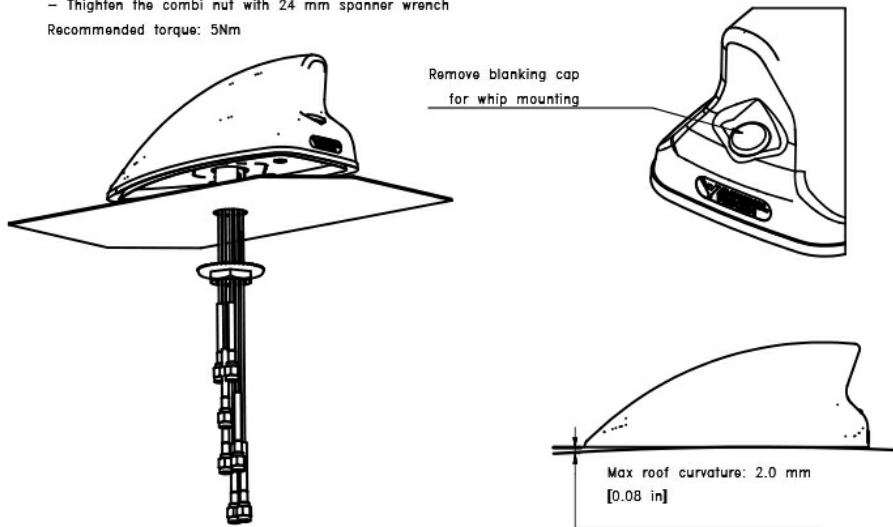


INSTALLATION DIMENSIONS



Mounting Instructions:

- Drill a 18.5-19 mm hole in the car roof
 - Max roof curvature: 2.0 mm [0.08] (on 173mm)
 - Pull the cables through the hole.
 - Tighten the combi nut with 24 mm spanner wrench
- Recommended torque: 5Nm



All dimensions are given in mm [in.]

Important: The whip should always be dismantled during car wash.