

## A multi purpose shark fin antenna for UHF, GNSS, GPS, 2G/3G/4G and dual WiFi 2.4 + 5.0 GHz

### DESCRIPTION

- In-built UHF antenna available.
- In-built 4G antenna (698 - 960 MHz and 1710 - 2700 MHz).
- GNSS antenna for GPS L1, Glonass, Beidou and Galileo.
- Dual WiFi 2.4 and 5.0 GHz.
- Supports external whip.
- No diplexer needed.
- The ProFin provides antennas for multiple technologies.
- The ProFin covers UHF, GNSS, GPS L1, 2G/3G/4G cellular bands, dual WiFi 2.4 and 5.0 GHz and an optional whip.
- The ProFin can support antenna whip in the range 66 - 6000 MHz.
- All ProFin configurations are prepared for external whip.
- Easily removable whip for car wash.
- Full hemispherical coverage for the GNSS and GPS.
- Built-in high gain, low noise amplifier.
- Right-Hand Circular Polarization (RHCP).
- 3 - 15 VDC for GPS supply.
- DC supply via GPS RF-connector.



### SPECIFICATIONS

| Electrical          |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| Model               | ProFin                                                                                                    |
| Frequency           | UHF: 380-470 MHz (in three models)<br>WiFi: 2300-2500 MHz, 5000-6000 MHz<br>4G 698-960 MHz, 1710-2700 MHz |
| Antenna Type        | Mobile Shark Fin Style Antenna                                                                            |
| Polarisation        | Vertical                                                                                                  |
| Pattern Type        | Omnidirectional                                                                                           |
| Impedance           | 50 Ω                                                                                                      |
| VSWR                | < 2.0:1 (< 2.5:1 for 698 -960 MHz)                                                                        |
| Maximum Input Power | 25 W for built-in UHF and 4G antenna<br>100 W for whip                                                    |
| Gain (EIA RS-329-1) | Varies over frequency (see gain table and plots)                                                          |

| Mechanical          |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| Antenna Colour      | Black (RAL 9005)                                                         |
| Connection(s)       | SMA(m) (all antennas)                                                    |
| Materials           | Reinforced PA, Zamak 5                                                   |
| Installation Torque | 4 +/- 0.5 Nm                                                             |
| Colour              | Black (RAL 9005)                                                         |
| Dimensions          | Approx. 76 x 142.5 mm / 2.99 x 5.61"                                     |
| Max. Roof Thickness | 3 mm / 0.12 in.                                                          |
| Whip Connection     | SMA-male                                                                 |
| Weight              | 0.26 kg / 0.57 lb                                                        |
| Mounting            | 18.5 mm / 0.8" dia. hole<br>Max roof curvature: 2.0 mm/0.08" (on 142 mm) |

| GPS Antenna                         |                           |
|-------------------------------------|---------------------------|
| Noise Figure (GPS Amplifier)        | < 1.5 dB (typical 1.1 dB) |
| Gain (GPS Amplifier)                | 22 dB ± 2 dB              |
| Frequency (GPS)                     | 1575 MHz                  |
| Power Supply (GPS)                  | 3 - 15 VDC                |
| Current Consumption (GPS Amplifier) | < 12 mA                   |
| Impedance (GPS)                     | 50 Ω                      |



Shown with optional external whip.

| GNSS Antenna                         |                                                               |
|--------------------------------------|---------------------------------------------------------------|
| Noise Figure (GNSS Amplifier)        | 1.6 dB (typ.)                                                 |
| Cross Polar Discrimination (GNSS)    | > 10 dB (typ.)                                                |
| Gain (GNSS Amplifier)                | 26 dB (typ.)                                                  |
| Selectivity (GNSS Amplifier)         | > 25 dB down @ 0 - 1540 MHz<br>> 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 Ω                                                          |

| Environmental               |                  |
|-----------------------------|------------------|
| Operating Temperature Range | -50 °C to +75 °C |



## ORDERING

| Type                       | Product No. | Description                                                      |
|----------------------------|-------------|------------------------------------------------------------------|
| ProFin G1                  | 132000230   | 4G, WIFI,GNSS                                                    |
| ProFin G2                  | 132000231   | 4G, WIFI,GNSS,GPS                                                |
| ProFin G1-395              | 132000232   | 4G, WIFI,GNSS,UHF 380-410 MHz                                    |
| ProFin G1-430              | 132000233   | 4G, WIFI,GNSS,UHF 410-450 MHz                                    |
| ProFin G1-450              | 132000234   | 4G, WIFI,GNSS,UHF 430-470 MHz                                    |
| ProFin G2-395              | 132000236   | 4G, WIFI,GNSS,GPS,UHF 380-410 MHz                                |
| ProFin G2-430              | 132000237   | 4G, WIFI,GNSS,GPS,UHF 410-450 MHz                                |
| ProFin G2-450              | 132000238   | 4G, WIFI,GNSS,GPS,UHF 430-470 MHz                                |
| MP-SS-S/FM whip            | 132000244   | Stainless steel whip with shock spring.                          |
| MP-SS-S/150 whip           | 132000245   | Stainless steel whip with shock spring. (adjustable by customer) |
| MP-B/450/405 MHz whip      | 132000247   | Flexible whip (0 dB acc. to TIA-329.2-C)                         |
| MP-B/450/445 MHz whip      | 132000248   | Flexible whip (0 dB acc. to TIA-329.2-C)                         |
| MP-SS/450-4/395 MHz whip   | 132000249   | Stainless steel collinear whip (4 dB acc. to TIA-329.2-C)        |
| MP-SS/450-4/425 MHz whip   | 132000250   | Stainless steel collinear whip (4 dB acc. to TIA-329.2-C)        |
| MP-SS/450-4/455 MHz whip   | 132000251   | Stainless steel collinear whip (4 dB acc. to TIA-329.2-C)        |
| MP-G-S/150/450/.../...whip | 132000224   | Flexible whip with shock spring (factory adjusted)               |
| MP-G-S/450/FM/395 whip     | 132000256   | Flexible whip with shock spring (factory adjusted)               |
| 5m ProFin Cable Kit        | 132000243   |                                                                  |
| 1m SMA(f)-N(m)             | 130002409   |                                                                  |
| 2m SMA(f)-N(m)             | 130002410   |                                                                  |
| 3m SMA(f)-N(m)             | 130002411   |                                                                  |
| 4m SMA(f)-N(m)             | 130002412   |                                                                  |
| 5m SMA(f)-N(m)             | 130002413   |                                                                  |
| 1m SMA(f)-BNC(m)           | 130002414   |                                                                  |
| 2m SMA(f)-BNC(m)           | 130002415   |                                                                  |
| 3m SMA(f)-BNC(m)           | 130002416   |                                                                  |
| 4m SMA(f)-BNC(m)           | 130002417   |                                                                  |
| 5m SMA(f)-BNC(m)           | 130002418   |                                                                  |
| 1m SMA(f)-TNC(m)           | 130002419   |                                                                  |
| 2m SMA(f)-TNC(m)           | 130002420   |                                                                  |
| 3m SMA(f)-TNC(m)           | 130002421   |                                                                  |
| 4m SMA(f)-TNC(m)           | 130002422   |                                                                  |
| 5m SMA(f)-TNC(m)           | 130002423   |                                                                  |
| 1m SMA(f)-SMA(m)           | 130002424   |                                                                  |
| 2m SMA(f)-SMA(m)           | 130002425   |                                                                  |
| 3m SMA(f)-SMA(m)           | 130002426   |                                                                  |
| 4m SMA(f)-SMA(m)           | 130002427   |                                                                  |
| 5m SMA(f)-SMA(m)           | 130002428   |                                                                  |
| SMA(f)-N(m)                | 130002429   |                                                                  |
| SMA(f)-BNC(m)              | 130002430   |                                                                  |
| SMA(f)-TNC(m)              | 130002431   |                                                                  |
| SMA(f)-SMB(m)              | 130002432   |                                                                  |

