

# MultiFin Antenna

Combination Antenna - GNSS, 5G Cellular, and WiFi

710671, 710672



## Description

Multiband combination antenna in a rugged, low-profile design. Configurable to meet your specific needs. Delivers optimal performance and support of multi-carrier voice and data networks.

## Technologies

- Cellular MIMO
- WiFi MIMO
- GNSS
- AM/FM/DAB active
- GPS
- GLONASS
- BEIDOU
- GALILEO

## Features

- Configurable
- Rugged, low profile
- Cellular MIMO and WiFi MIMO with diagnostic resistor
- Optional GNSS rod with LNA
- Optional AM/FM/DAB rod with LNA
- IP67 compliant design



## MultiFin Antenna

### Combination Antenna - GNSS, 5G Cellular, and WiFi

The MultiFin antenna platform offers excellent RF performance in a discreet rugged, low-profile design. The antenna platform is configurable enabling adaptation to your antenna system needs. MultiFin may contain; MIMO cellular band antennas (2G, 3G, 4G and 5G ready), active GNSS antennas, MIMO WiFi antennas, and an optional rod including LNA for AM/FM/DAB. Cellular and WiFi antennas are equipped with a 10K $\Omega$  diagnostic resistor enabling gateway diagnostic functionality. The MultiFin antenna platform is designed to support multi-system solutions for; cars, light vehicles, heavy vehicles, ambulances, buses, infotainment systems, telematics systems, and fleet management.

#### Features

- Configurable antenna platform
- Rugged, low profile
- MIMO, 2G/3G/4G/5G antenna with diagnostic resistor
- MIMO, WiFi antenna with diagnostic resistor
- GPS/GLONASS/Galileo/Beidou antenna with LNA
- Optional AM/FM/DAB rod with LNA
- Optional rod acc to Smarteq standard assortment ranging from 27-1000MHz (Tetra, LTE450, CB...)
- IP6K9K
- Cable approved according ECE-R118

#### Certifications



# MultiFin Antenna

## Combination Antenna - GNSS, 5G Cellular, and WiFi

### Standard Configurations

Model	Elements	Cables	Connectors	Mount	Optional Rod
710671	LTE WiFi GNSS	RG316, brown Cable length upon request	FAKRA Connector type upon request	Hole mount with center screw Hole dimension Ø19mm Installation thickness ≤ 5.5mm Min. installation radius 2000mm	27-1000MHz according to Smarteq rod guide
710672	LTE WiFi	RG316, brown Cable length upon request	FAKRA Connector type upon request	Hole mount with center screw Hole dimension Ø19mm Installation thickness ≤ 5.5mm Min. installation radius 2000mm	27-1000MHz according to Smarteq rod guide

### Electrical Specifications – RF Antennas

Frequency Ranges (MHz)	VSWR <sup>1</sup>	Peak Gain <sup>2</sup>	Polarization	Nominal Impedance	Maximum Power
<b>LTE Primary</b>					
698 - 960 MHz	≤ 3:1	3 dBi	Vertical	50 ohms	25 watts
1710 - 2170 MHz	≤ 2.5:1	5 dBi			
2500 - 2690 MHz	≤ 3.0:1	5 dBi			
3400 - 3800 MHz	≤ 3.0:1	4 dBi			
<b>WiFi</b>					
2400 - 2485 MHz		2.15 dBi	Vertical	50 ohms	25 watts
4915 - 5825 MHz					

### Electrical Specifications – GNSS Antenna

Specification	Measurement
Frequencies	1559 - 1610 MHz
Impedance	50Ω
Polarization	RHCP
VSWR	< 2.0:1
Gain Passive (Peak Gain)	GPS 4.5 dBic GLONASS 4.0 dBic BEIDOU 3.0 dBic GALILEO 3.0 dBic
Gain Active	30 + 1 dB
Noise Figures	< 2.5 dB with pre-filter (1.2 dB no pre-filter)
Supply Voltage	2.4-6V
Current Consumption	8-10mA

<sup>1</sup> VSWR values are measured at the end of 0.5m cable without a ground plane.

<sup>2</sup> Peak Gain values measured on ground plane (excluding cable)

# MultiFin Antenna

## Combination Antenna - GNSS, 5G Cellular, and WiFi

### Electrical Specifications – AM/FM + DAB rod

Specification		Measurement
Frequencies		511 - 1710 kHz 87 - 108 MHz 174 - 240 MHz
Impedance		50Ω
Polarization		RHCP
VSWR		< 2.0:1
Gain Passive (Peak Gain)	AM FM DAB	6,5dBi 6,5dBi 6,5dBi
Gain Active		30 + 1 dB
Noise Figures		< 2.5 dB with pre-filter (1.2 dB no pre-filter)
Supply Voltage		Phantom feed, 12V Separate supply, 8-16V
Current Consumption	AM/FM DAB	45mA 30mA

### Mechanical and Environmental Specifications

#### Physical

Dimensions (L x W x H)		155 x 80 x 65 mm (excluding rod)
Weight		~200g
Radome Construction		PC/PBT/Aluminum alloy
Operating / Storage Temperature		-40°C to +85°C
IP Class		IP6K9K

**CONTACT US**

**For more information about  
this product contact your  
sales representative or visit  
> [pctel.com/antenna-products](https://pctel.com/antenna-products)**

### **Solving Complex Wireless Challenges**

PCTEL is a leading global provider of wireless technology solutions, including purpose-built Industrial IoT devices, antenna systems, and test and measurement products. Trusted by our customers for over 25 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.



**PCTEL, Inc.**

T: +1 630 372 6800 | [pctel.com](https://pctel.com)

Specifications subject to change without notice. PCTEL® is a registered trademark of PCTEL, Inc. 3M® is a registered trademark of 3M. ©2022 PCTEL, Inc. All rights reserved. (Sept. 2022)