



MultiFin

7X1 Multiband through hole mounted antenna

- 2x2 MIMO LTE / 5G
- 2x2 MIMO WiFi 6E / LTE Secondary
- GNSS
- Optional rod
- Optional AM/FM/DAB active

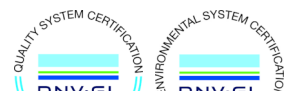
MultiFin antenna platform offer excellent RF performance in a discreet rugged, low-profile design. The multifunctional antenna supports; 2x2 MIMO for LTE/5G and 2x2 MIMO WiFi-6E / LTE and active GNSS antenna. The GNSS LNA has a pre-filter enabling co-existence with other radio systems. Cellular and WiFi antennas are equipped with 10KΩ diagnostic resistor enabling gateway diagnostic functionality. One of the main advantages of MultiFin is the possibility to mount an optional rod offered by Smarteq according to the general standard rod assortment enabling support of TETRA, P25, VHF, UHF, FM. MultiFin platform is designed to support multi system solutions for; cars, light vehicles, heavy vehicles, ambulances, buses, Public safety, telematics system, fleet management.



- 7 in 1 antenna platform
- Designed and manufactured acc to IATF 16949
- Rugged, Low profile optimal for rescue vehicles
- IP6K9K
- Cable approved according ECE-R118
- 2x2 MIMO: LTE / 5G with diagnostic resistor
- 2x2 MIMO: WiFi / LTE-Secondary with diagnostic resistor
- GNSS- GPS/Glonass/Galileo/Beidou antenna with LNA
- Optional rod according to Smarteq standard assortment ranging from 27-1000MHz (Tetra, LTE450, CB...)
- Optional AM / FM / DAB rod with LNA

SMARTEQ™

Smarteq, based in Stockholm, Sweden, is a leading developer of antennas and antenna systems for increased availability. Smarteq aims towards the market segments industry, energy and vehicles. Smarteq reserves the right to change the





MultiFin with optional rod

Specifications

2x2 MIMO LTE / 5G antennas

Frequencies	617 - 960MHz	
	1710 - 2170MHz	
	2300 - 2690MHz	
	3300 - 4200MHz	
	4400 - 5000MHz	
Impedance	50Ω	
Polarization	Vertical	
VSWR (0,5m cable)	617 - 698MHz	
	698 - 960MHz	≤ 3:1
	1710 - 2170MHz	≤ 2.5:1
	2300 - 2690MHz	≤ 2.5:1
	3400 - 3800MHz	≤ 2.5:1
Gain, on ground plane (peak gain, excluding cable)	4400 - 5000MHz	≤ 2.0:1
	698 - 960MHz	4dBi
	1710 - 2170MHz	8dBi
	2300 - 2690MHz	5.5dBi
	3400 - 3800MHz	8dBi
	4400 - 5000MHz	10dBi

2x2 MIMO WiFi 6E / LTE secondary antennas

Frequencies	1710-2170MHz	
	2300-2690MHz	
	3300-4200MHz	
	4400-5000MHz	
	4900-7125MHz	
Impedance	50Ω	
Polarization	Vertical	
VSWR (0.5m cable)	1710 - 2170MHz	≤ 3:1
	2300 - 2690MHz	≤ 3:1
	3400 - 3800MHz	≤ 3:1
	4400 - 5000MHz	≤ 3:1
	4900 - 7125MHz	≤ 3:1
Gain, on ground plane (peak gain, excluding cable)	1710 - 2170MHz	5dBi
	2300 - 2690MHz	8.5dBi
	3400 - 3800MHz	8dBi
	4400 - 5000MHz	10dBi
	4900 - 7125MHz	10dBi

GNSS

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 figure	< 2.5 dB with pre-filter (1.2 dB no pre-filter)	
Supply Voltage	2.4 - 6V	
Current Consumption	8 - 10mA	

Rod

Optional rod	27-1000MHz according to Smarteq rod guide
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Option Active AM/FM + DAB rod

Frequency	511 - 1710kHz 87 - 108MHz 174 - 240MHz	
Impedance	50Ω	
Polarization	Vertical	
Gain passive	Depending on rod length	0dBi
Gain Active	AM FM DAB	6.5dBi 6.5dBi 6.5dBi
Supply voltage	Phantom feed Separate supply	12V 8-16V
Current consumption	AM/FM DAB	45mA 30mA

Mechanical

Dimensions (L x W x H)	165x87x62mm (excluding rod)	
Installation	Hole mount with center screw Hole dimension Ø19mm Installation thickness ≤ 5.5mm Min. installation radius 2000mm	
Cable	RG316, brown 0,2meter	
Connector	See table part numbers	
Weight	~280g	
Material	PC/PBT/Aluminum alloy	
IP class	IP6K9K	
Temperature	Storage Operating	-40°C to +85°C -40°C to +85°C



Selection of MultiFin

Part number	Antenna port					
	Cellular 5G/LTE	Cellular 5G/LTE	GNSS+	LTE-Sec WIFI-6E	LTE-Sec WIFI-6E	Rod (option)
710671	FAKRA Male Code D	FAKRA Male Code D	FAKRA Male Code C	FAKRA Male Code I	FAKRA Male Code I	FAKRA Male Code B
710672	FAKRA Male Code D	FAKRA Male Code D		FAKRA Male Code I	FAKRA Male Code I	FAKRA Male Code B
710698	SMA Male	SMA Male	SMA Male	SMA Male	SMA Male	SMA Male

Other

RoHS compliant.

Certified according to 2014/53/EU Radio Equipment Directive (RED)

Type approval: E5 (ECE R10.5)

Accessories**Extension cables FAKRA/LL58**

Part number	Cable LL58	Connector	Gender	Code
710606	2.5m	FAKRA/SMA	Female/Male	Z/
710608	2.5m	FAKRA	Female/Female	D
710609	2.5m	FAKRA	Female/Female	C
710610	2.5m	FAKRA	Female/Female	I
710668	2.5m	FAKRA/RP-SMA	Female/Male	I
710607	5.0m	FAKRA/SMA	Female/Male	Z/
710611	5.0m	FAKRA	Female/Female	D
710612	5.0m	FAKRA	Female/Female	C
710613	5.0m	FAKRA	Female/Female	I
710669	5.0m	FAKRA/RP-SMA	Female/Male	I

Extension cables SMA/LL58

Part number	LL58	Connector	Gender	Color
201417-1	3.0m	SMA	Female/Male	White
201417-2	5.0m	SMA	Female/Male	White
201417-7	5.0m	SMA	Female/Male	Black
201417-3	10m	SMA	Female/Male	White

Extension cables SMA/Low Loss

Part number	Low loss	Connector	Gender	Color
707220	3.0m	SMA	Female/Male	Black
710298	5.0m	SMA	Female/Male	Black
707222	10m	SMA	Female/Male	Black