



# AllDisc Combi Antenna

## 2G / 3G / 4G / 5G, GNSS+, MIMO WiFi

AllDisc Combi antenna platform can be configured to support several antenna systems; Cellular bands 2G/3G/4G/5G, GPS/GLONASS/Galileo, Wi-Fi 2xMIMO 2.4/5GHz in a low profile casing with durable design IP6K9K. It is ground plane independent and enables flexible and easy installation, making it perfect for fleet management, track and trace, navigation, cargo handling and V2X. Dual feed GNSS antenna enables excellent Axial ratio and gain. Pre-filtered LNA ensures functionality in a combination antenna. The superior RF performance enables high connectivity and throughput. The Alldisc has been successfully tested for durability according to Volkswagen automotive test standards.

### Features

- Cellular: 698-960 / 1710-2690MHz and 3400-3800MHz
- 5G ready
- WiFi/BT: 2400-2485MHz and 4915-6000MHz
- GNSS: 1559-1610MHz
- GPS, Galileo, Glonass, BeiDou
- LNA gain 30dB with pre-filter
- IP6K9K class
- Approved according to ECE-R118
- Designed in Sweden with design registration

### Applications

- Public safety
- Track and trace
- Fleet management
- Navigation / Positioning
- V2X
- Cargo/load handling

## Specifications

### Electrical

#### Cellular 2G/3G/4G/5G

Frequencies	698-960MHz, 1710-2690MHz and 3400-3800MHz	
Impedance	50Ω	
Polarization	Vertical	
VSWR (0.2m cable)	698-790MHz	≤ 2:1
	790-880MHz	≤ 2.0:1
	880-960MHz	≤ 2.7:1
	1710-1880MHz	≤ 2.5:1
	1880-2170MHz	≤ 2:1
	2500-2690MHz	≤ 3.0:1
	3400-3800MHz	≤ 3.0:1
Gain, on ground plane (peak gain, excluding cable)	698-960MHz	4.5dBi
	1710-1880MHz	5dBi
	1920-2170MHz	4.5dBi
	2500-2690MHz	3.5dBi
	3400-3800MHz	7dBi
Gain, on non-conducting material (peak gain, excluding cable)	698-880MHz	1dBi
	880-960MHz	1.5dBi
	1710-1880MHz	4dBi
	1920-2170MHz	3dBi
	2500-2690MHz	3dBi
VSWR (0.2m cable)	698-790MHz	≤ 2:1

#### WiFi

Frequencies	2400-2485MHz	
	4915-5825MHz	
Polarization	Vertical	
VSWR	≤ 1.5:1	
Gain, on ground plane (peak gain, excluding cable)	2400-2485MHz	3.5dBi
	4900-6000MHz	6.5dBi

**GNSS**

Frequencies	1559 - 1610MHz	
Impedance	50Ω	
Polarization	RHCP	
VSWR	< 2.0:1	
Gain Passive (peak gain)	1585MHz	4,5dBic
	GPS	3.0dBic
	GLONASS	2.0dBic
	BEIDOU	1.5dBic
	GALILEO	2.0dBic
Gain Active	30 ± 1dB	
Noise figure	< 2.5dB with pre-filter	(1.2dB no pre-filter)
Out of band rejection	< 960MHz	> 60dB
	> 1710MHz	> 60dB
Compression point	-20 dBm	
Supply Voltage	2.4-6V	
Current Consumption	8-10mA	

**Mechanical**

Dimension (dxh)	138 x 55mm		
Installation	Hole mount with center screw		
	Hole dimension Ø19mm		
	Installation thickness ≤ 8.5mm		
	Min. installation radius 2000mm		
Cable Other cable length upon request	RG316	0.2m	
Connector	Cellular	Bordeaux	Code D
	GNSS	Blue	Code C
FAKRA Male	WiFi #1	Beige	Code I
	Other connector type upon request	WiFi #2	Beige
Weight	~200g		
Material	PC / PBT / Aluminum alloy		
IP class	IP6K9K		
Temperature	Storage	-40°C to +85°C	
	Operating	-40°C to +85°C	

**Selection of Alldisc Combi versions**

Part number	Antenna color	Radio System	Cable length (m)	Connector	Code
710526	Black	Cellular	0.20	FAKRA-m	D
		GNSS	0.25		C
		WiFi	0.30		I

Other antenna combinations and connector/cable lengths are available please contact Smarteq Sales for information

**Accessories**

## Part number

710452	Alldisc Bracket White
710598	Slitted nut
710206	Extension nut

**Extension cables**

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
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

**Other**

RoHS compliant

REACH compliant

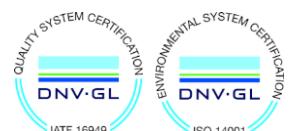
Certified according to 2014/53/EU Radio Equipment Directive (RED)

Type approval: E5 (ECE R10.5)

Smarteq reserves the right to change specifications without prior notice.

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.

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AllDisc bracket



Slitted nut



Extension nut to be used on Alldisc with long screw enabling installation thickness 25-50mm