

Smarteq™ AllDisc Combi MIMO WiFi-7, GNSS Antenna Platform

Combination Antennas – GNSS + Cellular + MIMO 2x2 WiFi/
LTE Sec

710260, 710261, 710450, 710478



Description

A low-profile, whipless combination antenna with durable design that delivers optimal performance and support of multi-carrier voice and data networks.

Technologies

- 2G / 3G / 4G / 5G
- WiFi-7 / Bluetooth®
- GNSS
- GPS L1
- Galileo E1
- Glonass L1
- BeiDou

Features

- Up to 4-in-1 combination antenna
- 5G ready
- LNA gain 30dB with pre-filter
- Easy to install
- IP6K9K class
- Cable approved acc ECE-R118
- IATF 16949



710452 – AllDisc bracket



710598 – Slotted nut

710206 – Extension nut
to be used on AllDisc with long
screw enabling installation
thickness 25-50mm

Smarteq™ AllDisc Combi MIMO WiFi-7, GNSS Antenna Platform

Combination Antennas – GNSS + Cellular + MIMO 2x2 WiFi

The Smarteq™ AllDisc Combi antenna platform can be configured to support several antenna systems; Cellular bands 2G/3G/4G/5G, GPS/GLONASS/Galileo, MIMO 2x2 WiFi, 2.4/5/6 GHz (1427-7200 MHz in a low profile casing with durable design IP6K9K. It is ground plane independent which 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 Combi antenna platform has been successfully tested for durability according to Volkswagen automotive test standards.

Features

- 5G ready
- Cellular Main: 617-960 / 1710-2690 MHz and 3300-3800 MHz
- WiFi-7/BT: 2400-2485 MHz and 4900-7200 MHz
- GNSS: 1575-1610 MHz
- GPS: L1, Galileo: E1, Glonass: L1
- LNA gain 30dB
- IP6K9K class
- Approved according to ECE-R118
- Designed in Sweden with design registration

Certifications



Applications

- Off-Highway Vehicle (OHV)
- Public safety
- Track and trace
- Fleet management
- Navigation / Positioning
- V2X
- Cargo/load handling

SPECIFICATIONS



Smarteq™ AllDisc Combi MIMO WiFi-7, GNSS Antenna Platform

Combination Antennas – GNSS + Cellular + MIMO 2x2 WiFi

Standard Configurations

Model	Elements	Cable	Cable Length	Code	Connector	Housing Color	Mount	Accessories
710260	LTE	RG316, grey	0.20m	D	FAKRA-Male	Black	Hole mount with center screw and adhesive tape	710452 – AllDisc bracket 710598 – Slotted nut 710206 – Extension nut
	GNSS	RG316, grey	0.25m	C				
710261	LTE	RG316, grey	0.20m	D	FAKRA-Male	Black		
	GNSS	RG316, grey	0.25m	C				
	WiFi-7 (1)	RG316, grey	0.30m	I				
710450	LTE	RG316, grey	2.5m		SMA-m	Black		
	GNSS	RG316, grey	2.5m					
710478	LTE	RG316, grey	5m		SMA-m	Black		
	GNSS	RG316, grey	5m					

Electrical Specifications – RF Antennas (All Models)

Frequency Ranges	VSWR ¹	Peak Gain ²	Efficiency ³	Correlation Factor	Nominal Impedance	Polarization	Radiation Characteristics	Max. Power ⁴	DC Short
LTE / 5G									
617 - 698 MHz	< 3:1	1 dBi	~40%	<0.02	50Ω	Linear, vertical	Omnidirectional	10 watts	Yes
698 - 960 MHz	< 2.7:1	5.5 dBi	~65%						
1710 - 2690 MHz	< 2.1:1	4.5 dBi	~77%						
3300 - 3800 MHz	< 1.9:1	6.5 dBi	~66%						
WiFi-7 (1 & 2)									
2400 - 2485 MHz	1.5:1	8.5 dBi	85%	<0.02	50Ω	Linear, vertical	Omnidirectional	10 watts	
4900 - 6000 MHz	2:1	10.5 dBi	75%						
6000 - 7200 MHz	2.5:1	10 dBi	60%						

Electrical Specifications – GNSS Antennas (All Bands)

Frequency Range	VSWR ¹	Peak Gain ²	Gain Active	Nominal Impedance	Polarization	DC Voltage	DC Current
1575 - 1610 MHz	≤ 2.0:1	-3.5dBiC @ fc	30+2dB	50Ω	Right Hand Circular	2.8-5.5V	15-25mA

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

² Peak Gain values measured on ground plane (excluding cable)

³ Antenna efficiency measured?

⁴ Maximum power measured at ambient temperature of 25°C

SPECIFICATIONS



Smarteq™ AllDisc Combi MIMO WiFi-7, GNSS Antenna Platform

Combination Antennas – GNSS + Cellular + MIMO 2x2 WiFi

Mechanical and Environmental Specifications (All Models)

Physical

Dimensions (D x H)	138 x 55 mm
Weight	~200g
Radome Construction	PC/PBT/Aluminum alloy
Operating / Storage Temperature	-40°C to +85°C
IP Class	IP6K9K

Extension Cables

Part Number	Cable Length	Connector	Gender	Code
LL58 Cable				
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

CONTACT US

**For more information about
this product contact your
sales representative or visit
➤ 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 29 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.



PCTEL, Inc.

T: +1 630 372 6800 | pctel.com

Specifications subject to change without notice. PCTEL® and Smarteq™ are trademarks or registered trademarks of PCTEL, Inc. ©2023 PCTEL, Inc. All rights reserved. (November 2023)