

Smarteq™ AllDisc Combi MIMO GNSS+ Combination Antenna Platform

Up to 4-in-1 LTE/5G, WiFi 7 GNSS+ Combination Antenna

710679, 710680, 710681, 710827



Description

Low-profile 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
- GNSS
 - GPS
 - Galileo
 - Glonass
 - Beidou

Features

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



710452 – AllDisc
bracket



710598 – Slitted nut



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

Smarteq™ AllDisc Combi MIMO GNSS+ Antenna Platform

Up to 4-in-1 LTE/5G, WiFi 7 GNSS+ Combination Antenna

The Smarteq™ AllDisc Combi MIMO GNSS+ antenna platform available up to 4-in-1 supporting LTE/5G, WiFi 7 and GNSS (GPS, Galileo, Glonass, Beidou) in a low-profile housing. It is ground plane independent which enables flexible and easy installation, making it perfect for fleet management, track and trace, navigation and cargo handling. 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 MIMO GNSS+ antenna platform has been successfully tested for durability according to Volkswagen automotive test standards. .

Features

- 5G ready
- LTE Main: 617-960 MHz/1710-2690 MHz/3300-3800 MHz
- LTE Sec/WiFi 7 (1427-7200 MHz)
- GNSS: 1559-1610 MHz
- LNA gain 30dB with pre-filter
- Easy to install
- IP6K9K class
- Cable approved acc ECE-R118
- Optional: Long thread version

Applications

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

Certifications



SPECIFICATIONS



Smarteq™ AllDisc Combi MIMO GNSS+ Antenna Platform

Up to 4-in-1 LTE/5G, WiFi 7 GNSS+ Combination Antenna

Standard Configurations

Model	Elements	Cable Length	Connector	Housing Color	Accessories
710679	LTE Main LTE Sec/WiFi LTE Sec/WiFi	0.20m 0.30m 0.35m	FAKRA-m/D FAKRA-m/I FAKRA-m/I	Black	710452 – AllDisc bracket 710598 – Slitted nut 710206 – Extension nut (for long thread version)
710680	LTE Main GNSS+ LTE Sec/WiFi LTE Sec/WiFi	0.20m 0.25m 0.30m 0.35m	FAKRA-m/D FAKRA-m/C FAKRA-m/I FAKRA-m/I	Black	
710681	LTE Main LTE Sec/WiFi	0.20m 0.30m	FAKRA-m/D FAKRA-m/I	Black	
710827	LTE Main GNSS+ LTE Sec/WiFi	0.20m 0.25m 0.30m	FAKRA-m/D FAKRA-m/C FAKRA-m/I	Black	

Electrical Specifications – RF Antennas (All Models)

LTE/5G Main

Frequency Ranges	617 - 698 MHz	698 - 960 MHz	1710 - 2690 MHz	3300 - 3800 MHz
VSWR ¹	≤ 3:1	≤ 2.7:1	< 2.1:1	< 1.9:1
Peak Gain ²	1 dBi	5.5 dBi	4.5 dBi	6.5 dBi
Efficiency ²	~40%	~65%	~77%	~66%
Isolation port 1 to 2	12 dB	16 dB	25 dB	30 dB
Correlation factor	<0.04			
Impedance	50Ω			
Polarization	Linear			
Radiation characteristics	Omnidirectional			
Max. Power ³	10 watts			
DC Short	Yes			

2 x LTE sec/WiFi 7

Frequency Ranges	1427-1510 MHz	1710-2690 MHz	3300-5000 MHz	4900-7200 MHz
VSWR ¹	2:01	2:01	2:01	2:01
Peak Gain ²	4.5 dBi	6 dBi	6.5 dBi	9.5 dBi
Efficiency ²	70%	75%	70%	70%
Correlation factor	<0.04			
Impedance	50Ω			
Polarization	Linear			
Radiation characteristics	Omnidirectional			
Max. Power ³	10 watts			

¹ Antenna parameters measured with 0.5m cable in free space

² Peak Gain measured with 0.5m cable on Ø30cm ground plane.

³ Maximum power measured at ambient temperature of 25°C.

SPECIFICATIONS

Smarteq™ AIIDisc Combi MIMO GNSS+ Antenna Platform

Up to 4-in-1 LTE/5G, WiFi 7 GNSS+ Combination Antenna

Electrical Specifications – GNSS Antennas (All Bands)

GNSS

Frequency Ranges	1559 - 1610 MHz	
Impedance	50Ω	
Polarization	RHCP	
VSWR	< 2.0:1	
Gain Passive / Peak Gain	GPS GLONASS BEIDOU GALILEO	4.5 dBic 4.0 dBic 3.0 dBic 3.0 dBic
Gain Active	30 + 1dB	
Noise Figure	< 2.5 dB with pre-filter	(1.2 dB no pre-filter)
Out of Band Rejection	< 960 MHz > 1710 MHz	> 60dB > 60dB
Compression Point	-20 dBm	
Supply Voltage	2.4-6 V	
Current Consumption	8-10 mA	

Mechanical and Environmental Specifications (All Models)

Physical

Dimensions (D x H)	138 x 55 mm
Weight	~200g
Radome Construction	PC/PBT/Aluminum alloy
Cable	RG316
Mounting Instruction	Hole mount with center screw Hole dimension Ø19mm Installation thickness ≤ 8.5mm Min. installation radius 2000mm
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, an Amphenol company, 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 decades, 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. ©2025 PCTEL, Inc. All rights reserved. (September 2025)