

Smarteq™ LPCA Family Low Profile Combination Antenna

10-in-1 TETRA + Cellular + GNSS + Wi-Fi

LPCA 1-7



Description

Low profile configurable antenna designed to support multi-system solutions for heavy vehicles, buses, ambulances, forest machines or M2M applications.

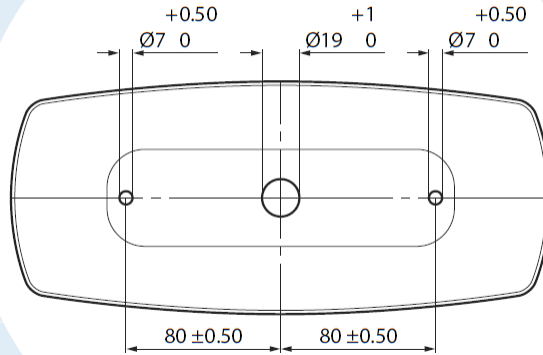
Technologies

- TETRA
- ISM
- CDMA450/LTE450
- Cellular
- Wi-Fi
- GNSS
 - GPS
 - Galileo
 - Glonass

Features

- 10 different configurations
- 430-450 MHz, Cellular
- Low profile, height 50mm
- Ground plane independent
- Rugged
- IP67
- Cable approved acc ECE-R118
- Designed in Sweden in collaboration with the forest industry





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The Smarteq™ LPCA (Low Profile Combination Antenna) is a rugged, low profile combination antenna designed for use in telematics applications. The antenna is the perfect choice when the application needs a multifunctional solution with TETRA, CDMA450/LTE450, cellular, GNSS and Wi-Fi combined for buses, heavy vehicles, ambulances, forest machines or other M2M applications.

Features

- Configurable design TETRA, CDMA450/ LTE450, Cellular, GNSS, Wi-Fi
- Low profile, height 50mm
- Ground plane independent
- Rugged
- IP67
- Cable approved acc ECE-R118
- Designed in Sweden in collaboration with the forest industry

Applications

- Public safety
- Fleet management
- Navigation / Positioning
- Agriculture, construction equipment
- V2X
- Cargo/load handling
- M2M

Certifications



SPECIFICATIONS



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Selection of Smarteq™ LPCA Models

Model	Part Number	Antenna Ports						
		TETRA 380-410MHz	TETRA 410-430MHz	ISM 430-450MHz	CDMA 450/LTE450 450-470MHz	Cellular	GNSS	Wi-Fi
Smarteq™ LPCA 1	710068				■	■	■	
Smarteq™ LPCA 2	710100	■				■	■	
Smarteq™ LPCA 3	710130		■			■	■	
Smarteq™ LPCA 4	710153				■	■	■	■
Smarteq™ LPCA 5	710156	■				■	■	
Smarteq™ LPCA 6	710150		■			■	■	■
Smarteq™ LPCA 7	710289			■		■		
Smarteq™ LPCA 8¹	710494		■					
Smarteq™ LPCA 9¹	710460				■			
Smarteq™ LPCA 10¹	710573	■					■	

Electrical Specifications

TETRA / CMDA450

Frequencies	TETRA	380-410MHz 410-430MHz 430-450MHz
	CDMA450/LTE450	450-470MHz
Impedance	50Ω	
Polarization	Vertical	
Radiation characteristics	Omni	
VSWR²	2:1	
Gain²	2.15dBi	
Max Power	10W	

Wi-Fi

Frequencies	2400-2485MHz 4915-5875MHz
Impedance	50Ω
Polarization	Vertical
Radiation characteristics	Omni
VSWR²	1.5:1
Gain²	2.15dBi
Max Power	10W

Cellular

Frequencies	790-960MHz 1710-2690MHz	
Impedance	50Ω	
Polarization	Vertical	
Radiation characteristics	Omni	
VSWR²	790-960MHz	3:1
	1710-2690MHz	2:1
Gain²	790-960MHz	2.51dBi
	1710-2690MHz	3.15dBi
Max Power	10W	

¹ Please see separate datasheet



SPECIFICATIONS



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Electrical Specifications

GNSS (GPS / Glonass / Galileo)

Frequency	1575-1610 MHz (GPS L1, Glonass L1, Galileo E1)
Impedance	50Ω
Polarization	RHCP
VSWR ²	<2.0:1
Passive Gain (peak)	-3.5dBic@fc
Active Gain	27dB
Supply Voltage	2.8-5.5V
Typical Current Consumption	15-25mA

Mechanical and Environmental Specifications (All Models)

Physical

Dimensions (L x W x H)	280 x 120 x 50mm			
Color	Black, other colors available upon request			
Installation	Hole mount, Ø19mm; Installation thickness ≤ 6mm			
Cable	System	Length	Type	
	TETRA, CDMA450/LTE450	615mm	RG316	
	Cellular	515mm	RG316	
	GNSS	565mm	RG316	
	Wi-Fi	465mm	RG316	
Connector	Part Number	Model	Connector Type	Connector Gender
	710068	Smarteq™ LPCA 1	FAKRA	Male
	710100	Smarteq™ LPCA 2	SMA	Female
	710130	Smarteq™ LPCA 3	FAKRA	Male
	710153	Smarteq™ LPCA 4	FAKRA	Male
	710156	Smarteq™ LPCA 5	FAKRA	Male
	710150	Smarteq™ LPCA 6	FAKRA	Male
	710289	Smarteq™ LPCA 7	TNC	Male
	710494	Smarteq™ LPCA 8 ¹	FME	Female
	710460	Smarteq™ LPCA 9 ¹	FME	Female
	710573	Smarteq™ LPCA 10 ¹	FAKRA	Male
Temperature (Storage / Operating)	-40°C to +85°C			
IP Class	IP67			
Compliance / Certifications	This part is RoHS compliant. Certified according to 2014/53/EU Radio Equipment Directive (RED)			

¹ Please see separate datasheet



CONTACT US

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this product contact your
sales representative or visit
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