

Smarteq™ LPCA Family Low Profile and Single-Band Antennas

Up to 4-in-1 TETRA/LTE450 + LTE + WiFi + GNSS+

LPCA 1-10



Description

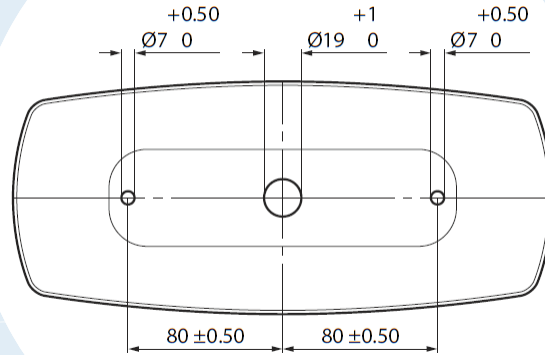
LPCA family consists of low profile combination and single-band antennas designed to support multi-system solutions for heavy vehicles, buses, ambulances, forest machines or M2M applications.

Technologies

- TETRA/LTE450
- LTE
- ISM
- WiFi
- GNSS
 - GPS
 - Galileo
 - Glonass
 - Biedou

Features

- 10 different configurations
- Frequencies: 380-410 MHz/410-430 MHz/430-450 MHz/450-480 MHz
- Low profile, height 50 mm
- Ground plane independent
- Rugged
- IP67
- Cable approved acc ECE-R118
- Designed in Sweden in collaboration with the forest industry



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Up to 4-in-1 TETRA/LTE450 + LTE + WiFi + GNSS+

The Smarteq LPCA antenna family consists of low profile combination and single-band antennas designed for use in telematics applications. These antennas is the perfect choice when the application needs a multifunctional solution with TETRA/LTE450, LTE, WiFi and GNSS+ combined for buses, heavy vehicles, ambulances, forest machines or other M2M applications.

Features

- Configurable design TETRA/LTE450, LTE, GNSS, WiFi
- 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	LTE450 450-470MHz	LTE	GNSS	WiFi
Smarteq™ LPCA 1	710834				■	■	■	
Smarteq™ LPCA 2	710835	■				■	■	
Smarteq™ LPCA 3	710836		■			■	■	
Smarteq™ LPCA 4	710837				■	■	■	■
Smarteq™ LPCA 5	710838	■				■	■	
Smarteq™ LPCA 6	710839		■			■	■	■
Smarteq™ LPCA 7	710289			■		■		
Smarteq™ LPCA 8	710494		■					
Smarteq™ LPCA 9	710460				■			
Smarteq™ LPCA 10	710840	■					■	

Electrical Specifications (Models 1-7)

TETRA/LTE450

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

WiFi

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

LTE

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

Electrical Specifications (Models 8-10)

Model	LPCA 8	LPCA 9	LPCA 10
Frequency	410-430 MHz	430-470 MHz	380-410 MHz
Gain (in free space) ¹	2.3 dBi	2.5 dBi	1.5 dBi
Gain (on metal plate) ¹	3 dBi	4 dBi	2.8 dBi
VSWR1	<2.5:1	<2.5:1	<3:1
Efficiency (in free space) ¹	70%	70%	60%
Efficiency (on metal plate) ¹	70%	73%	65%
Impedance	50 Ω		
Polarization	Vertical		
Radiation characteristics	Omnidirectional		
Max Power	10 W		

¹ Measurements are made on Ø1m ground plan

SPECIFICATIONS



Smarteq™ LPCA Family Low Profile and Single-Band Antennas

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Electrical Specifications (All Models)

GNSS

Frequencies	1559-1610 MHz	
Impedance	50 Ω	
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 + 1 dB	
Noise Figures	< 2.5 dB with pre-filter (1.2 dB no pre-filter)	
Supply Voltage	2.40-6 V	
Current Consumption	8-10 mA	

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/LTE450	615mm	RG316	
	LTE	515mm	RG316	
	GNSS	565mm	RG316	
	WiFi	465mm	RG316	
Connector	Part Number	Model	Connector Type	Connector Gender
	710834	Smarteq™ LPCA 1	FAKRA	Male
	710835	Smarteq™ LPCA 2	SMA	Female
	710836	Smarteq™ LPCA 3	FAKRA	Male
	710837	Smarteq™ LPCA 4	FAKRA	Male
	710838	Smarteq™ LPCA 5	FAKRA	Male
	710839	Smarteq™ LPCA 6	FAKRA	Male
	710289	Smarteq™ LPCA 7	TNC	Male
	710494	Smarteq™ LPCA 8'	FME	Female
	710460	Smarteq™ LPCA 9'	FME	Female
710840	Smarteq™ LPCA 10'	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)			

CONTACT US

**For more information about
this product contact your
sales representative or visit
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Solving Complex Wireless Challenges

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