Leankon Product Brochure

Date: Sep 2025
Rev: C

Off-the-Shelf Antenna Solutions

leankon

Wi-Fi/Bluetooth/Zigbee Antennas (Page 3-4)

LK1810101 2.4/5/6GHz Corner mounting SMD
LK1810201 2.4/5/6GHz Middle edge mounting SMD
LK1810401 2.4/5/6GHz Dipole Flex cable center-fed Adhesive
LK1810501 2.4/5/6GHz Dipole Flex cable side-fed Adhesive
LK1810601 2.4/5/6GHz Small size Flex cable side-fed Adhesive

Cellular 5G/4G LTE Antennas (Page 5)

LK1830101 617-960/1427-5925MHz SMD
LK1830201 698-960/1559-2690MHz SMD
LK1830301 600-960/1559-6000MHz Flex cable side-fed Adhesive

UWB/V2X/DSRC/Wi-Fi 5&6GHz Antennas (Page 6)

LK1820101 5.15-8.5GHz Corner mounting SMD
LK1820201 6.0-8.5GHz Corner mounting SMD
LK1820301 3.1-10.6GHz Dipole Flex cable center-fed Adhesive

433MHz/868MHz/915MHz LoRa Antennas (Page 7)

LK1840101 868/915MHz Corner mounting SMD
LK1840201 868/915MHz Middle edge mounting SMD
LK1840301 868/9150MHz Dipole Flex cable center-fed Adhesive
LK1840401 433MHz Monopole Flex cable side-fed Adhesive

GPS/GNSS/Satellite Antennas (Page 8-9)

LK1850101 L1 L2 L5 Middle edge mounting SMD
LK1850201 L band satellite Middle edge mounting SMD
LK1850301 L1 L2 L5 Dipole Flex cable center-fed Adhesive
LK1850401 L1 Patch ceramic Adhesive
LK1850601 L1 L5 Stacked-patch ceramic Adhesive
LK1850701 L1 L2 Stacked-patch ceramic Adhesive
LK1850801 GPS L1/ L band satellite Dipole Flex cable center-fed Adhesive

NFC Antennas (Page 10-12)

LK1860101 φ 20mm
LK1860201 φ 30mm
LK1860301 15mm x 15mm
LK1860401 25mm x 15mm
LK1860501 30mm x20mm
LK1860601 40mm x 20mm
LK1860701 40mm x 30mm
LK1860801 40mm x 40mm
LK1860901 50mm x 40mm

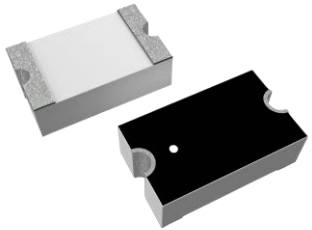
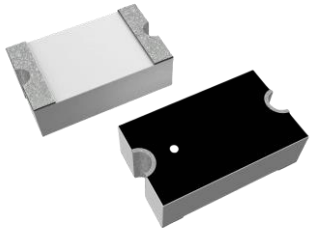
External Antennas (Page 13-14)

LK1910101 7in1 external antenna adhesive
- 4 x 4 MIMO 5G FR1& 4G LTE/ 2x2 MIMO WiFi tri-band/1 GPS/GNSS L1

LK1920101 5in1 external antenna adhesive
- 2 x 2 MIMO 4G LTE/ 2x2 MIMO WiFi tri-band/1 GPS/GNSS L1

Wi-Fi/Bluetooth/Zigbee Antennas (1 of 2)

leankon

Part Number	LK1810101				LK1810201			
Main Features	Corner mounting				Middle edge mounting			
Frequency (GHz)	Config A	Config B			Config A	Config B		
	2.4-2.5	2.4-2.5	5.15-5.85	5.85-7.125	2.4-2.5	2.4-2.5	5.15-5.85	5.85-7.125
Return Loss (dB)	< -10.0	< -7.0	< -7.0	< -7.5	< -6.0	< -7.0	< -7.0	< -7.5
VSWR	< 2.0	< 2.7	< 2.7	< 2.5	< 3.0	< 2.7	< 2.7	< 2.5
Average Efficiency	> 65%	> 55%	> 65%	> 65%	> 55%	> 65%	> 70%	> 70%
Peak Gain (dBi)	1.6	1.2	2.8	2.6	0.8	2.3	2.1	2.9
Polarization	Linear				Linear			
Dimensions (mm)	3.2 x 1.6 x 0.5				3.2 x 1.6 x 0.5			
Clearance on PCB	6.0 mm x 6.0 mm				4.6 mm x 4.5 mm	5.0 mm x 5.2 mm		
Mounting	SMT				SMT			
Product Image								

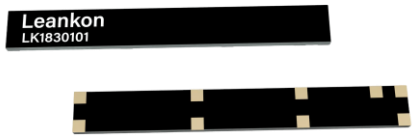
Wi-Fi/Bluetooth/Zigbee Antennas (2 of 2)

leankon

Part Number	LK1810401			LK1810501			LK1810601		
Main Features	Balanced Dipole Design Center-fed cable			Balanced Dipole Design Side-fed cable			Ultra-small size		
Frequency (GHz)	2.4-2.5	5.15-5.85	5.85-7.125	2.4-2.5	5.15-5.85	5.85-7.125	2.4-2.5	5.15-5.85	5.85-7.125
Return Loss (dB)	< -10.0	< -10.0	< -10.0	< -10.0	< -10.0	< -10.0	< -7.0	< -6.0	< -5.5
VSWR	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.7	< 3.0	< 3.3
Average Efficiency	> 75%	> 75%	> 75%	> 75%	> 80%	> 75%	> 55%	> 60%	> 55%
Peak Gain (dBi)	1.2	2.3	3.6	2.2	3.8	3.6	1.6	2.1	2.9
Polarization	Linear			Linear			Linear		
Dimensions (mm)	32.0 x 7.0 x 0.1			36.0 x 7.0 x 0.1			15.0 x 6.0 x 0.1		
Mounting	Peel-and-Stick			Peel-and-Stick			Peel-and-Stick		
Product Image									

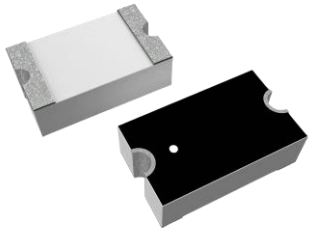
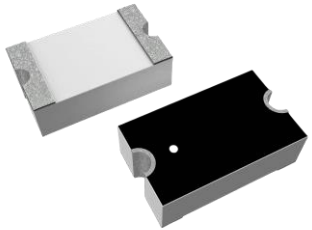
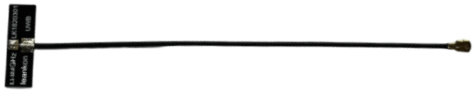
Cellular Antennas (5G FR1/4G LTE/NB-IOT/ LTE CAT-M)

leankon

Part Number	LK1830101					LK1830201			LK1830301			
Main Features	5G full bands & GPS/GNSS L1					4G full bands & GPS/GNSS L1			5G/4G LTE full bands & GPS/GNSS L1			
Frequency (MHz)	617-960	1427-1700	1710-2690	3000-5000	5000-5925	698-960	1710-2690	1559-1610	600-960	1559-1610	1710-2690	3300-6000
Return Loss (dB)	< -5.0	< -2.0	< -7.0	< -5.0	< -5.0	< -6.0	< -7.0	< -3.0	< -4.4	< -6.0	< -6.0	< -5.0
VSWR	< 3.6	< 8.7	< 2.6	< 3.6	< 3.6	< 3.0	< 2.6	< 5.8	< 4.0	< 3.0	< 3.0	< 3.6
Average Efficiency	> 55%	> 45%	> 70%	> 60%	> 45%	> 60%	> 65%	> 32%	> 40%	> 50%	> 50%	> 50%
Peak Gain (dBi)	1.6	3.0	3.3	4.2	3.7	1.4	3.5	1.5	1.75	0.7	2.75	5.3
Polarization	Linear					Linear			Linear			
Dimensions (mm)	40.0 x 5.0 x 1.0					40.0 x 5.0 x 1.0			84.0 x 14.5 x 0.1			
Clearance on PCB	40.0 mm x 14.9 mm					10.0 mm x 10.9 mm			N/A			
Mounting	SMT					SMT			Peel-and-Stick			
Product Image												

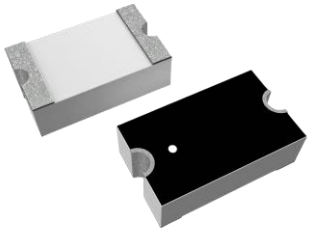
UWB/V2X/DSRC/Wi-Fi

leankon

Part Number	LK1820101			LK1820201				LK1820301			
Main Features	Ultra-wide bandwidth			Support UWB AOA application & Small form factor				Balanced Dipole Design			
Frequency (GHz)	5.15-5.85	5.15-7.125	6.0-8.5	Ch 5	Ch 6	Ch 7	Ch 8/Ch 9	3.1 -3.29	3.3-5.19	5.2-9.29	9.3-10.6
				6.25-6.75	6.75-7.25	6.0-7.0	7.25-8.25				
Return Loss (dB)	< -8.5	< -8.0	< -8.0	< -10.0	< -10.0	< -10.0	< -10.0	< -2.9	< -4.0	< -10.0	< -7.6
VSWR	< 2.2	< 2.4	< 2.4	< 2.0	< 2.0	< 2.0	< 2.0	< 6.0	< 4.5	< 2.0	< 2.3
Average Efficiency	> 70%	> 70%	> 75%	> 80%	> 80%	> 75%	80%	> 36%	> 45%	> 75%	> 60%
Peak Gain (dBi)	3.9	3.9	3.7	3.2	3.1	3.2	3.7	2.2	3.6	4.2	4.7
Polarization	Linear			Linear				Linear			
Dimensions (mm)	3.2 x 1.6 x 0.5			3.2 x 1.6 x 0.5				18.0 x 6.0 x 0.1			
Clearance on PCB	4.0 mm x 5.0 mm			4.0 mm x 5.0 mm				N/A			
Mounting	SMT			SMT				Peel-and-Stick			
Product Image											

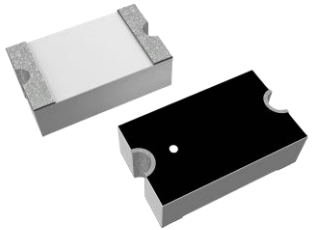
433MHz/868MHz/915MHz LoRa/ISM/WiFi-Halow

leankon

Part Number	LK1840101		LK1840201		LK1840301		LK1840401
Main Features	Corner mounting		Middle edge mounting		Balanced Dipole Design		Small Form Factor
Frequency (MHz)	866-870	902-928	866-870	902-928	868 ±2	902-928	420-480
Return Loss (dB)	< -10.0	< -9.0	< -10.0	< -8.0	< -7.5	< -7.5	< -6.5
VSWR	< 2.0	< 2.1	< 2.0	< 2.4	< 2.5	< 2.5	< 2.7
Average Efficiency	> 50%	> 55%	> 50%	> 60%	> 50%	> 50%	> 37%
Peak Gain (dBi)	0.4	0.5	0.4	0.5	0.5	1.7	-0.3
Polarization	Linear		Linear		Linear		Linear
Dimensions (mm)	13.8 x 4.0 x 1.0		3.2 x 1.6 x 0.5		64.0 x 10.0 x 0.1		64.0 x 10.0 x 0.1
Clearance on PCB	15.0 mm x 9.0 mm		12.5 mm x 10.0 mm		N/A		N/A
Mounting	SMT		SMT		Peel-and-Stick		Peel-and-Stick
Product Image							

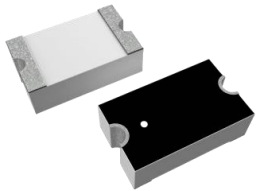
GPS/GNSS/Satellite Antennas (1 of 2)

leankon

Part Number	LK1850101				LK1850401			LK1850601	
Main Features	Middle edge mounting				Ceramic RHCP			High precision	
Frequency (MHz)	Config A	Config B			GPS	BEIDOU	GLONASS	1176.45	1559-1610
	1559-1610	1176.45	1227.6	1559-1610	1575.42	1561	1602		
Return Loss (dB)	< -8.0	< -10.0	< -8.0	< -10.0	< -10.0	< -8.0	< -10.0	< -10.0	< -10.0
VSWR	< 2.3	< 2.0	< 2.3	< 2.0	< 2.0	< 2.4	< 2.0	< 2.0	< 2.0
Average Efficiency	> 75%	> 50%	> 60%	> 60%	> 70%	> 70%	> 75%	> 70%	> 70%
Peak Gain	1.1 dBi	0.4 dBi	1.0 dBi	1.9 dBi	5.4 dBic	5.4 dBic	5.5 dBic	1.0 dBic	3.5 dBic
Polarization	Linear				RHCP			RHCP	
Dimensions (mm)	3.2 x 1.6 x 0.5				25.0 x 25.0 x 4.0			45.0 x 45.0 x 10.0	
Clearance on PCB	5.0 x 6.0 mm	7.0 mm x 9.0 mm			N/A			N/A	
Mounting	SMT				Stick-and-Stick			Stick-and-Stick	
Product Image									

GPS/GNSS/Satellite Antennas (2 of 2)

leankon

Part Number	LK1850201	LK1850801		LK1850301			LK1850701	
Main Features	Middle edge mounting	Balanced Dipole Design		Balanced Dipole Design/Small Size			High precision	
Frequency (MHz)	1610-1680	1559-1610	1610-1700	1176 ±10	1227 ±10	1559-1610	1227.6	1559-1610
Return Loss (dB)	< -8.0	< -5.5	< -5.9	< -8.0	< -9.0	< -10.0	< -10.0	< -10.0
VSWR	< 2.3	< 3.3	< 3.1	< 2.4	< 2.1	< 2.0	< 2.0	< 2.0
Average Efficiency	> 65%	> 50%	> 55%	> 47%	> 58%	> 50%	> 70%	> 70%
Peak Gain	1.6 dBi	0.1 dBi	0.44 dBi	-0.7 dBi	1.0 dBi	1.2 dBi	1.1 dBic	3.5 dBic
Polarization	Linear	Linear		Linear			RHCP	
Dimensions (mm)	3.2 x 1.6 x 0.5	32.0 x 8.7 x 0.1		49.0 x 10.0 x 0.1			45.0 x 45.0 x 10.0	
Clearance on PCB	4.5 x 6.0 mm	N/A		N/A			N/A	
Mounting	SMT	Stick-and-Stick		Stick-and-Stick			Stick-and-Stick	
Product Image								

NFC/RFID Antennas (1 of 3)

leankon

Part Number	LK18601xx Series			
	LK1860101	LK1860102	LK1860103	LK1860104
Frequency (MHz)	13.56			
La @13.56Mhz (uH)	0.86	1.22`	0.95	1.33
Ra @13.56MHz (Ω)	1.4	1.77	1.8	2.22
Ferrite	Without	With	Without	With
Connector Type	N/A	N/A	Molex P/N 505565-0201	Molex P/N 505565-0201
Dimensions (mm)	Φ 20mm x 0.17mm	Φ 20mm x 0.27mm	Φ 20mm x 0.17mm	Φ 20mm x 0.27mm
Product Image				

Notes:

1. All NFC antennas include 4 variants, the same as LK18601xx series.
2. The other 8 series as follow slides only present one variant, visit website for more details.

NFC/RFID Antennas (2 of 3)

leankon

Part Number	LK1860201	LK1860301	LK1860401	LK1860501
Frequency (MHz)	13.56			
La @13.56Mhz (uH)	1.09	1.0	1.2	0.93
Ra @13.56MHz (Ω)	1.9	2.0	2.4	1.34
Ferrite	Without	Without	Without	Without
Connector Type	N/A	N/A	N/A	N/A
Dimensions (mm)	Φ 30mm x 0.17mm	15mm x 15mm x 0.17mm	25mm x 15mm x 0.17mm	30mm x 20mm x 0.17mm
Product Image				

NFC/RFID Antennas (3 of 3)

leankon

Part Number	LK1860601	LK1860701	LK1860801	LK1860901
Frequency (MHz)	13.56			
La @13.56Mhz (uH)	1.18	0.95	1.1	1.27
Ra @13.56MHz (Ω)	1.57	1.5	1.4	1.6
Ferrite	Without	Without	Without	Without
Connector Type	N/A	N/A	N/A	N/A
Dimensions (mm)	40mm x 20mm x 0.17mm	40mm x 30mm x 0.17mm	40mm x 40mm x 0.17mm	50mm x 40mm x 0.17mm
Product Image				

External Antenna Solution-7 in 1

leankon

Part Number	LK1910101
5G FR1/ 4G LTE (4 x 4 MIMO)	a) 2 x 2 MIMO 5G FR1/4G LTE Full Band : 600-960MHz/1400-1550MHz/1710-6000MHz b) 2 x 2 MIMO 5G FR1/4G LTE Mid/High Band : 1400-1550MHz/1710-6000MHz
Wi-Fi (2 x 2 MIMO)	2 x 2 Wi-Fi MIMO: 2.4-2.5GHz/5.15-7.125GHz
GPS (Active)	GPS/GNSS L1 Patch Antenna: 1559-1610MHz a) Polarization: RHCP b) LNA Gain: 28dB±3dB c) Noise Figure: < 3dB
Dimensions (mm)	159.5 x 115.0 x 22.5
Mounting	Peel-and-Stick

External Antenna Solution-5 in 1

leankon

Part Number	LK1920101
4G LTE (2 x 2 MIMO)	2 x 2 MIMO 4G LTE Full Band : 698-960MHz/15000-6000MHz
Wi-Fi (2 x 2 MIMO)	2 x 2 Wi-Fi MIMO: 2.4-2.5GHz/5.15-7.125GHz
GPS (Active)	GPS/GNSS L1 Patch Antenna: 1559-1610MHz a) Polarization: RHCP b) LNA Gain: 28dB±3dB c) Noise Figure: < 3dB
Dimensions (mm)	154.5 x 65.0 x 20.0
Mounting	Peel-and-Stick

Thank you.

Email: Info@leankon.com