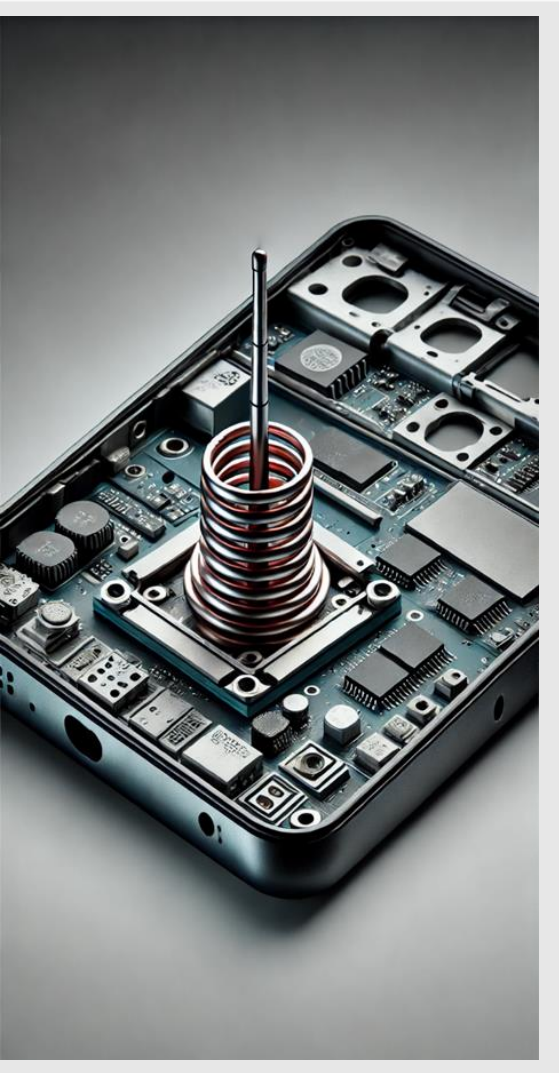


Antenna Catalogue WS Range

Version: 1.6 (SH)

Date: 19.08.2024



FPC Antenna

SMD Antenna

GNSS Antenna

External Antenna

Combination Antenna

About RoundSolutions

Founded 1999 in Germany, RoundSolutions is one of the leading pioneers in M2M and IoT technologies. We design, build and distribute the world's most advanced Edge and wireless technologies.

Single External Antennas

Our Single External antennas can be adjusted to optimize signal strength and coverage.

Single Internal Antennas

Compact and space-efficient or where external antenna is impractical.

Combination External Antennas

A wide range of frequencies and wireless technologies in one single mold.

Combination Internal Antennas

Unmatched flexibility and streamline the integration of multiple antennas in one.



FPC Antenna

Product	ANT-BXE4401	ANT-LXE4404	ANT-LXE4405
Product Pictures			
PN	ANT-BXE4401-RF1	ANT-LXE4404-RF1	ANT-LXE4405-RF1
General Specifications			
Mounting type	Adhesive	Adhesive	Adhesive
Connector type	RF1 Standard	RF1 Standard	RF1 Standard
Dimensions (mm)	50.7(L) x 9.0(W) x 0.12(H)	70(L) x 20(W) x 0.12(H)	80(L) x 20(W) x 0.12(H)
Cable length(mm)	101mm(Line length)	101mm(Line length)	101mm(Line length)
Operating temperature	- 20°C to + 60 °C	- 20°C to + 60 °C	- 20°C to + 60 °C
Electrical Specifications			
Standards	2.4G /5.8G WiFi	4G/3G/2G/NB-IoT/CAT M1	5G/4G/3G/2G/NB-IoT/CAT M1
Frequency (MHz)	2400~2500, 5100~5900	698~960, 1710~2690	698~960, 1710~6000
VANT-WSR	<2.0, <4.0	<2.5, <2.6	<2.7, <2.8
Peak Gain (dBi)	0.5~2.0, 1.5~4.0	-1.8~2.0, -0.5~4.2	0.5~2.1, -2.6~3.9
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	Linear
Max. Input Power (W)	5	5	5

FPC Antenna

Product	ANT-L2N3E4401		
Product Pictures			
PN	ANT-L2N3E4401-RF1		
General Specifications			
Mounting type	Adhesive		
Connector type	RF1 Standard		
Dimensions (mm)	289.5(L) x 25.0(W) x 0.12(H)		
Cable length(mm)	100mm(Line length)		
Operating temperature	- 20°C to + 60 °C		
Electrical Specifications	Cable 1	Cable 2	Cable 3
Standards	5G/4G/3G/2G	GPS /GLONASS/GALILEO	5G/4G/3G/2G
Frequency (MHz)	600~960, 1400~2700, 3000~6000	1575, 1602	600~960, 1400~2700, 3000~6000
VANT-WSR	<3.0, <2.5, <2.5	1.2, 1.1	<3.0, <2.5, <2.5
Peak Gain (dBi)	-0.5~3.5, 3.0~5.0, 2.0~5.0	3.0, 3.1	0~4.0, 2.5~4.5, 2.0~5.0
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	Linear
Max. Input Power (W)	5	5	5

SMD Antenna

Product	ANT-LXE4401	ANT-LXE4402	ANT-LXE4403
Product Pictures			
PN	ANT-LXE4401	ANT-LXE4402	ANT-LXE4403
General Specifications			
Mounting type	SMD	SMD	SMD
Dimensions (mm)	35.0(L) x 8.5(W) x 3.0(H)	40.0(L) x 7.0(W) x 3.0(H)	35.0(L) x 8.5(W) x 3.0(H)
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications			
Standards	4G/3G/2G	4G/3G/2G/GPS/GLONASS /GALILEO/BEIDOU	4G/3G/2G/GPS/GLONASS /GALILEO/BEIDOU
Frequency (MHz)	698~960, 1710~2690	698~960, 1420~2700, 1559, 1575.42, 1602	698~960, 1559, 1575.42, 1602, 1710~2690
VANT-WSR	<3.9, <3.5	<5.0, <5.0, 2.3, 2.2, 2.1	<4.5, 2.2, 2.0, 1.7, <3.4
Peak Gain (dBi)	-3.1~0.7, -3.3~3.0	-0.5~2.3, 0.9~5.5, 4.2, 3.8, 3.4	-2.9~1.5, 3.5, 3.2, 2.7, -3.7~2.6
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	Linear
Max. Input Power (W)	5	5	5

SMD Antenna

Product	ANT-LXE4401	ANT-N3XE4401
Product Pictures		
PN	ANT-LXE4401	ANT-N3XE4401
General Specifications		
Mounting type	SMD	SMD
Dimensions (mm)	42.2 (L) x 10.3 (W) x 1.6 (H)	18.0(L) x 18.0(W) x 4.0(H)
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications		
Standards	5G / 4G / 3G/ 2G	GPS/GLONASS/GALILEO
Frequency (MHz)	610~960, 1400~2700, 3000~6000	1575.42, 1602
VANT-WSR	<3.0, <5.5, <4.0	1.09, 1.46
Peak Gain (dBi)	-1.5~2.7, 0~7.5, 0.2~6.0	2.7, 2.5
Impedance (Ohm)	50	50
Polarization	Linear	Circular polarization
Max. Input Power (W)	5	5

GNSS Antenna

Product	ANT-N3XG4402	ANT-N3XG4403
Product Pictures		
PN	ANT-N3XG4402	ANT-N3XG4403
General Specifications		
Mounting type	Adhesive	Adhesive
Connector type	Welding	Welding
Dimensions (mm)	25(L) x 25(W) x 4(H)	25(L) x 25(W) x 4(H)
Operating temperature	- 40 °C to + 85 °C	- 40 °C to + 85 °C
Electrical Specifications		
Standards	GPS/GLONASS/GALILEO	GPS/GLONASS/GALILEO /BEIDOU
Frequency (MHz)	1575.42, 1602, 1608	1561, 1575.42, 1602
VANT-WSR	1.3, 1.3, 1.3	1.8, 1.9, 1.5
Peak Gain (dBi)	5.2, 4.3, 4.0	4.8, 5.0, 4.7
Impedance (Ohm)	50	50
Polarization	RHCP	RHCP

GNSS Antenna

Product	ANT-N3XM4401	ANT-N3XG4401
Product Pictures		
PN	ANT-N3XM4401-Fakra	ANT-N3XG4401-RF1
General Specifications		
Mounting type	Magnet+Back Glue	Adhesive
Connector type	FAKRA-C(Right-Angle)	RF1 Standard
Dimensions (mm)	50.9(L) x 38.6(W) x 18(H)	18(L) x 18(W) x 4(H) 25(L) x 25(W) x 4(H)
Cable length(mm)	5000mm(Line length)	41mm(Line length)
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications		
Standards	GPS/GLONASS/GALILEO /BEIDOU	GPS L1+L5 / GALILEO/ E2 / BEIDOU B1
Frequency (MHz)	1559, 1575, 1602	1176, 1561, 1575
VANT-WSR	2.15, 2.48, 1.16	1.41, 1.24, 1.31
Active Gain (dB)	25 @ 3.6 V	30@ 3.6 V
Impedance (Ohm)	50	50
Polarization	RHCP	RHCP

External Antenna

Product	ANT-LXH4402-SMA/M	ANT-LXH4403-SMA/M	ANT-LXH4404-SMA/M
Product Pictures			
PN	ANT-LXH4402-SMA/M	ANT-LXH4403-SMA/M	ANT-LXH4404-SMA/M
General Specifications			
Mounting type	Connector Mount	Connector Mount	Connector Mount
Connector type	SMA-M	SMA-M	SMA-M
Dimensions (mm)	190 x 16.2	220 x 28 x 8	φ13 x 193
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications			
Standards	4G/3G/2G	5G/4G/3G/2G/NB-IoT /CAT M1/WiFi/BT/LoRa	5G/4G/3G/2G//NB-IoT/CAT M1
Frequency (MHz)	698~960, 1710~2690	433~6000	600~960, 1400~2700, 3000~6000
VANT-WSR	<3.4, <3.2	<4.5	<5.0, <4.0, <4.0
Peak Gain (dBi)	-0.5~2.0, -1.0~2.0	<-4.0	-3.0~4.5, 0.5~5.0, 0.5~5.0
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	Linear
Max. Input Power (W)	5	25	5

External Antenna

Product	ANT-LXM4401	ANT-LXW4401
Product Pictures		
PN	ANT-LXM4401-SMA/M	ANT-LXW4401-SMA/M
General Specifications		
Mounting type	Connector Mount	Connector Mount
Connector type	SMA-M	SMA-M
Cable length(mm)	RG174-2000mm(Line length)	RG174-3000mm(Line length)
Dimensions (mm)	φ46.5 x185	116.0 x 22.0 x 5.3
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications		
Standards	4G/3G/2G	4G/3G/2G
Frequency (MHz)	824~960, 1710~2690	824~960, 1710~2690
VANT-WSR	<2.5, <3.0	<2.5, <2.5
Peak Gain (dBi)	-0.5~1.5, -2.5~-0.5	-1.5~0.5, -5.0~-0.5
Impedance (Ohm)	50	50
Polarization	Linear	Linear
Max. Input Power (W)	5	5

External Antenna

Product	ANT-BXH4401-SMA-M	ANT-LXH4401-SMA-M
Product Pictures		
PN	ANT-BXH4401-SMA/M	ANT-LXH4401-SMA/M
General Specifications		
Mounting type	Connector Mount	Connector Mount
Connector type	SMA-M	SMA-M
Dimensions (mm)	φ10 x 109	194 x 44.1xΦ13
Operating temperature	- 40°C to + 85 °C	- 40°C to + 85 °C
Electrical Specifications		
Standards	2.4G WiFi/5.8G WiFi/WIFI6/6E	5G/4G/3G/2G/NB-IoT /CAT M1/WIFI 6/6E
Frequency (MHz)	2400~2500, 5100~7125	698~960, 1710~2690, 3000~6000
VANT-WSR	<2.0, <3.0	<3.2, <4.3, <3.5
Peak Gain (dBi)	2.4~3.3, 4.8~6.6	--0.9~2.4, -1.9~4.3, -7.8~5.7
Impedance (Ohm)	50	50
Polarization	Linear	Linear
Max. Input Power (W)	25	5

Combination Antenna

Product	ANT-L2N3R4403		
Product Pictures			
PN	ANT-L2N3R4403-SMA/M		
General Specifications			
Mounting type	Adhesive & Screw		
Connector type	SMA-M		
Cable length(mm)	RG174-3000mm(Line length)		
Dimensions (mm)	81.0 (φ) x 24.9 (H) x 3000 (Line length)		
Operating temperature	- 40°C to + 85 °C		
Electrical Specifications	Cable 1	Cable 2	Cable 3
Standards	4G/3G/2G	4G/3G/2G	GPS/GLONASS/GALILEO /BEIDOU
Frequency (MHz)	699~960, 1710~2170, 2300~2690	699~960, 1710~2170, 2300~2690	1575.42, 1598~1610
VANT-WSR	<3.0	<3.0	<2.0
Peak Gain (dBi)	0~3.5(699~960MHz) 0.5~3.5(1710~2170MHz) 0.5~3.5(2300~2690MHz)	0.8~3.8(699~960MHz) 2.0~5.0(1710~2170MHz) 1.5~3.0(2300~2690MHz)	0.6 (1575.42MHz) 0.8~1.0 (1598~1610MHz)
Active Gain (dB)	/	/	18@3.6V
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	RHCP
Max. Input Power (W)	5	5	/

Combination Antenna

Product	ANT-LN3M4401	
Product Pictures		
PN	ANT-LN3M4401-Fakra	
General Specifications		
Mounting type	Magnets	
Connector type	FAKRA-C FAKRA-D	
Cable length(mm)	RG174-3000mm(Line length)	
Dimensions (mm)	81.0 (φ) x 14.32 (L)	
Operating temperature	- 40°C to + 85 °C	
Electrical Specifications	Cable 1	Cable 2
Standards	4G/3G/2G	GPS/GLONASS/GALILEO
Frequency (MHz)	698~960, 1710~2170, 2300~2690	1575.42, 1598~1610
VANT-WSR	<3.0	<2.0
Peak Gain (dBi)	-0.5~2.5(698~960MHz) -0.4~3.0(1710~2170MHz) 0.6~3.2(2300~2690MHz)	/
Active Gain (dB)	/	28@ 3.6V
Impedance (Ohm)	50	50
Polarization	Linear	RHCP
Max. Input Power (W)	5	/

Combination Antenna

Product	ANT-L2N3R4402		
Product Pictures			
PN	ANT-L2N3R4402-SMA/M		
General Specifications			
Mounting type	Lock screw		
Connector type	SMA-M		
Cable length(mm)	RG174-3000mm(Line length)		
Dimensions (mm)	99.96 (φ) x 105.8 (H) x 3000 (Line length)		
Ingress protection	IP67		
Operating temperature	- 40°C to + 85 °C		
Electrical Specifications	Cable 1	Cable 2	Cable 3
Standards	4G/3G/2G	4G/3G/2G	GPS/GLONASS/GALILEO
Frequency (MHz)	690~960, 1710~2690	690~960, 1710~2690	1559, 1575.42, 1602
VANT-WSR	<3.8, <2.8	<2.9, <1.7	2.4, 1.77, 1.34
Peak Gain (dBi)	0.2~4.1, -0.4~3.3	0.3~3.0, 0.5~4.2	/
Active Gain (dB)	/	/	28@3.6V
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	RHCP
Max. Input Power (W)	5	5	/

Combination Antenna

Product	ANT-L2N3R4401		
Product Pictures			
PN	ANT-L2N3R4401-SMA/M		
General Specifications			
Mounting type	Lock screw		
Connector type	SMA-M		
Dimensions (mm)	99.96 (φ) x 105.8 (H) x 3000 (Line length)		
Cable length(mm)	RG174-3000mm(Line length)		
Ingress protection	IP67		
Operating temperature	- 40°C to + 85 °C		
Electrical Specifications	Cable 1	Cable 2	Cable 3
Standards	4G/3G/2G	2.4G/5G WIFI	GPS/GLONASS/GALILEO/BEIDOU
Frequency (MHz)	690~960, 1710~2690	2400~2500, 5100~5900	1559, 1575.42, 1602
VANT-WSR	<3.7, <2.0	<2.3, <2.5	2.4, 1.77, 1.34
Peak Gain (dBi)	-1.3~1.6, 0.5~2.6dBi	3.1~4.4, 2.7~5.2	/
Active Gain (dB)	/	/	28@3.6V
Impedance (Ohm)	50	50	50
Polarization	Linear	Linear	RHCP
Max. Input Power (W)	5	5	/

Combination Antenna

Product	ANT-L4N3R4401				
Product Pictures					
PN	ANT-L4N3R4401-SMA/M				
General Specifications					
Mounting type	Lock screw				
Connector type	SMA-M				
Dimensions (mm)	99.96 (φ) x 105.8 (H) x 2000 (Line length)				
Cable length(mm)	RG174-2000mm (Line length)				
Ingress protection	IP67				
Operating temperature	- 40°C to + 85 °C				
Electrical Specifications	Cable 1	Cable 2	Cable 3	Cable 4	Cable 5
Standards	5G/4G/3G/2G	5G/4G/3G/2G	5G/4G/3G/2G	5G/4G/3G/2G	GPS/GLONASS /GALILEO/BEIDOU
Frequency (MHz)	600~960, 1400~2700, 3000~6000	600~960, 1400~2700, 3000~6000	600~960, 1400~2700, 3000~6000	600~960, 1400~2700, 3000~6000	1559, 1575.42, 1602
VANT-WSR	<3.3, <3.0, <2.7	<4.6, <3.5, <3.0	<4.6, <3.0, <3.0	<3.6, <2.9, <2.5	2.4, 1.77, 1.34
Peak Gain (dBi)	-0.1~3.1, - 1.0~4.1, 0.6~3.6	-2.4~2.8, -2.1~4.1, -0.3~3.8	-0.9~3.4, -1.3~3.6, 0.2~3.2	-1.5~2.1, 0~4.3, 0.5~3.5	/
Active Gain (dB)	/	/	/	/	28@3.6V
Impedance (Ohm)	50	50	50	50	50
Polarization	Linear	Linear	Linear	Linear	RHCP
Max. Input Power (W)	5	5	5	5	/