

# Innovative **Technology** for a **Connected** World

# **About Laird Technologies**

Laird Technologies designs and manufactures customized, performance-critical products for wireless and other advanced electronics applications.

The company is a global market leader in the design and supply of electromagnetic interference (EMI) shielding, thermal management products, mechanical actuation systems, signal integrity components, and wireless antennae solutions, as well as radio frequency (RF) modules and systems.

Laird Technologies partners with its customers to customize product solutions for applications in many industries including:

- Telecommunications
- Mobile Communications
- Network Equipment
- Automotive
- Industrial & Instrumentation
- Aerospace
- Defense
- Medical
- Consumer Electronics
- Food & Beverage

Laird Technologies offers customers unique product solutions, dedication to research and development, as well as a seamless network of manufacturing and customer support facilities across the globe.



## A Brief Introduction to Land Mobile Radio Antennas

Land Mobile Radio (LMR) antennas are utilized in two-way wireless communication systems. They ensure interoperable communications in situations like emergencies, where the user can either be in a vehicle (mobile) or on foot (portable). These antennas operate over a wide range of frequencies, and are ideal for simultaneous data transmission to the connected networks of multiple users in government, public safety, and commercial applications.

#### World-Leading Solutions

As the industry leader in antenna products, Laird Technologies produces antennas in a diverse number of styles while ensuring maximum efficiency, power handling, and high-performance. To meet its customers' specific requirements, select antennas can be individually tuned to a specific frequency.

### Depend on Laird Technologies

Laird Technologies' LMR antennas are the industry standard for public safety agencies, fleet, and transportation networks. Established in-market presence and innovative molding techniques, with verified platforms and a variety of connection options adds to the reputation for rugged reliability in hazardous situations and harsh environments for these antennas. Benefits include:

- High durability
- · Heavy-duty design
- Excellent quality and RF performance
- Easy installation

## Portable Radio ANTENNAS

Portable radio antennas are used for wireless two-way communication by civil service, military, construction, and transportation organizations, with many custom applications.

Laird Technologies' portable radio antennas are the world standard for reliable, flexible antennas. Established in-market presence and innovative molding techniques, with verified platforms and a variety of connection options adds to the reputation for rugged reliability in hazardous situation and harsh environments for these antennas. Each antenna can be individually tuned to frequency to ensure optimum performance.



As the industry leader in radio antenna products, Laird Technologies produces antennas in a diverse number of styles. To ensure maximum performance, radio antennas can be individually tuned to frequency, while delivering high-performance in any environment.

# • A • EXL Series Series

### Low-band 27 to 88 MHz

FAMILY	FREQUENCY RANGES*	BANDWIDTH	BN	BNX	нт	KR	MD	MX	MXI	PL	SF	SFJ	SFU	SM	SMI	SMV	TN	TNX	LENGTH*	NOTES
A Series	27 - 88 MHz	6 - 12 MHz *	•		•	•		•		•							•		6" - 10" *	Lower cost than other low band antennas, uses rugged heat shrink tubing for radome
EXL Series	25 - 88 MHz	4 - 12 MHz *		•	•	•		•										•	10.75" - 11.1" *	Field tunable, more robust than A Series (used molded/machined radome)
EXW Series	30 - 88 MHz	58 MHz		•														•	12"	Broadbanded, most robust of the low band portable radio antennas

## VHF 118 to 225 MHz



FAMILY	FREQUENCY RANGES*	BANDWIDTH	BN	BNX	нт	KR	MD	МХ	MXI	PL	SF	SFJ	SFU	SM	SMI	SMV	TN	TNX	LENGTH*	NOTES
DR Series	118 - 225 MHz	107 MHz	•					•			•								19"	Broadbanded, uses rugged heat shrink tubing for radome, very flexible
EXB Series	118 - 225 MHz	4 - 13 MHz *	•	•	•	•	•	•	•	•	•	•	•	•			•	•	4.1" - 7.8" *	Industry standard, wide range of connector options available
SXB Series	136 - 174 MHz	11 - 13 MHz *						•			•		•						5.5"	Lowest cost of the VHF antennas, rigid (uses sheath)
EXH Series	145 - 175 MHz	10 MHz	•			•	•	•	•		•		•	•	•	•	•		10.5"	High gain
EXR Series	136 - 225 MHz	10 MHz	•	•				•	•				•		•	•			7" - 8"	Flexible, rugged
EXS Series	118 - 225 MHz	4 - 15 MHz*	•	•	•	•		•	•		•	•	•	•	•	•	•	•	3.3" - 5.10"	Shorter, less performance
EXW Series	136 - 240 MHz	5 - 26 MHz*		•				•										•	8.75"	High gain, flexible, low cost
TS Series	118 - 174 MHz	56 MHz	•		•	•		•									•		17"	High gain, broadbanded
V Series	118 - 225 MHz	4 - 15 MHz*	•		•	•		•									•		17"	Low cost, flexible

### UHF 300 to 512 MHz



FAMILY	FREQUENCY RANGES*	BANDWIDTH	BN	BNX	нт	KR	MD	МХ	MXI	PL	SF	SFJ	SFU	SM	SMI	SMV	TN	TNX	LENGTH*	NOTES
EXC Series	308 - 512 MHz	6 - 42 MHz*	•	•		•	•	•	•		•		•	•	•	•	•	•	5.9" - 7"	Low cost, flexible
EXD Series	308 - 512 MHz	6 - 42 MHz*	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	2.8" - 4.1"	Shorter, less performance
EXR Series	308 - 512 MHz	6 - 42 MHz*	•			•		•									•		6.62" - 6.95"	High gain, flexible
EXW Series	400 - 512 MHz	12 MHz		•														•	9"	High gain, flexible, low cost
G Series	400 - 512 MHz	20 - 42 MHz*	•														•		10"	High gain, flexible, broadbanded
SXD Series	420 - 470 MHz	30 MHz						•			•		•						3.5"	Low profile, rigid (uses sheath), low cost

## Trunking and SMR Apps 806 to 960 MHz



FAMILY	FREQUENCY RANGES*	BANDWIDTH	BN	BNX	нт	KR	MD	МХ	MXI	PL	SF	SFJ	SFU	SM	SMI	SMV	TN	TNX	LENGTH*	NOTES
EXC Series 806	806 - 866 MHz	60 MHz	•	•	•	•	•	•	•		•		•	•	•	•	•		3.7" - 4.6"	Low cost, rugged, flexible
EXC Series 821	821 - 902 MHz	81 MHz	•	•			•											•	3.7" - 4.6"	Low cost, rugged, flexible
EXC Series 902	902 - 960 MHz	58 MHz									•	•	•	•	•	•	•		3.5" - 3.65"	Low cost, rugged, flexible
EXE Series	806 - 960 MHz	19 - 58 MHz*	•	•			•				•		•	•			•	•	8" - 8.9"	High gain, rigid
EXP Series 806	806 - 869 MHz	63 MHz					•				•	•	•						6.9"	High gain, flexible, rugged
EXP Series 902	896 - 940 MHz	44 MHz					•				•	•	•						6.9"	High gain, flexible, rugged,
																				*SMS Connector
EXR Series	806 - 960 MHz	58 - 81 MHz*	•														•		9.16" - 9.5"	High gain, flexible
EXR Series 1850	1850 - 1970 MHz	120 MHz	•														•		9.25" - 9.5"	High gain, flexible
EXS Series	806 - 960 MHz	58 - 60 MHz*					•				•	•	•	•			•		2.25"	*SMS connector

## 2.4 GHz



FAMILY	FREQUENCY RANGES*	BANDWIDTH	LENGTH*	NOTES
EXE Series	2400 - 2500 MHz	100 MHz	8"	Covered TNX - 1/2 wave, high gain, rigid, broadbanded
EXC Series	2400 - 2500 MHz	100 MHz	2.5" - 4"	SMA, Rev Pol TNC, TNC - 1/4 wave, rigid, low cost, broadbanded
EXR Series	2400 - 2500 MHz	100 MHz	Right Angle	Rev Pol SMA, SMA, Rev Pol BNC - 1/2 wave, broadbanded
EXR Series	2400 - 2500 MHz	100 MHz	Right Angle	Rev Pol TNC - 1/4 wave, broadbanded, high gain
EXS Series	2400 - 2500 MHz	100 MHz	4"	Rev Pol SMA - 1/4 wave, lower gain, low cost, low profile
WRX Series	2400 - 2500 MHz	100 MHz	4"	TNC - 1/2 wave

<sup>\*</sup> varies by specific PN's

