

an INFINIT brand

Wireless Antennas for Any Need:

FREQUENCY

DIRECTION

ENVIRONMENT

GAIN

CONNECTION

WIRELESS ANTENNA SOLUTIONS From the Connection Experts

WIRELESS ANTENNA SOLUTIONS FROM THE CONNECTION EXPERTS!

Deliver wireless coverage just about anywhere – inside buildings, around campuses, metropolitan areas, densely populated areas, and more – with reliable L-com Antennas.

Choose from a variety of wireless antennas in both Directional and Omni-directional styles for indoor and/or outdoor use; in commercial, government or military applications – for a broad range of frequencies.

Our deep inventory includes the newer antenna technologies, such as MIMO and DAS, as well as the older standards. In addition, L-com carries all of the related products and accessories you may need for your wireless system installation, such as connectors, cable assemblies, radome cover kits, feedhorns, hardware, and mounting brackets.

APPLICATION GUIDE FOR WIRELESS ANTENNAS

	WIRELESS TYPE	WIRELESS APPLICATIONS	ANTENNA TYPE
•)) (((•	Point to Point/Bridge	 Educational Campuses Business Complexes Resorts and Theme Parks Transportation Terminals Wireless Back-haul 	- Dish - Grid - Yagi - Log Periodic - Patch/Panel
$((\cdot,\cdot)) ((\cdot,\cdot)) ((\cdot,$	Point to Multi-Point (PtMP)	 Convention Centers Hotels and Travel Centers Parks and Nature Centers Shopping Centers Sporting Complexes and Stadiums Hospitals and Medical Complexes 	- Omni-Directional - Sector & Sector Array - Ceiling
(((***))) (((**))) $(((**)))$ $(((**))) (((**)))$	Distributed Antenna System (DAS)	 Convention Centers Hospitals and Medical Complexes Business Complexes and Campuses Educational Campuses Sporting Complexes and Stadiums Transit (subways, airports, roadway tunnels) Casinos, Resorts and Theme Parks Shopping Centers Parks and Nature Centers Mining Industry 	- Omni-Directional - Mobile - Sector & Sector Array - Ceiling - Log Periodic
•)) ((•	RFID	 Retail Transportation Toll Collection Warehousing Courier Services Agriculture 	 Patch/Panel Omni-directional Yagi Ceiling Sector & Sector Array Rubber Duck
نابا ((به)) ۱۳ ((به))	SCADA	- Oil and Gas Industry - Power Plants - Agriculture - Environmental - Waste Control	- Grid - Patch/Panel - Omni-directional - Yagi
Police Bus Train Train		 Public Safety (Fire, Police) Public Transportation Freight Transportation Military Vehicles and Mobile Field Applications Marine Applications Fleet Tracking Management Systems Agricultural Vehicle and Product Tracking Systems Portable Wireless Devices 	- Mobile Omni-directional - Rubber Duck - Embedded PCB - GPS

THE LARGEST SELECTION AVAILABLE IN THE INDUSTRY



Dish

Patch/Panel



Sector

Grid

L-com offers in-building and outdoor base station RF antenna solutions for installers and their clients providing simple, reliable and cost effective deployment. From multi-band and WiFi to cellular and PCS our broad selection of directional and omni directional antennas will deliver the reliable performance you expect as you keep up with your increasing network demand. Our engineers utilize advanced technology to design and create best-in-class innovative antenna products.

Allow L-com to be your preferred antenna expert on your next project.

- Hundreds of Items In-Stock
- Free Technical Support

Yagi

- Value-added Services Available
- Customization Available

Custom Antennas & Related Products

In addition to having one of the broadest selections of antennas available, L-com can design a custom antenna to suit your needs. Custom orders make up a large percentage of the antennas we manufacture, so you can be assured that L-com has the unique capabilities and experience to design and build the antenna you require. Whether you need custom gains and frequencies, specific antenna lead lengths, connectors, color or certain OEM packaging, L-com will design and manufacture to suit your specific requirements

Antennas for All Radio Manufacturers

Embedded PCB

L-com's antennas are designed to work seamlessly with all radios regardless of the manufacturer providing superior performance, quality and durability. Don't let the radio manufacturers limit your antenna choice when deploying your network, choose the best antenna for your application by using L-com's wireless antennas on your next project. L-com has successfully paired their antennas with radios from Cisco, Ubiquiti, MicroTik, Aruba Networks, Ruckus Wireless and many others.

Log Periodic

MIMO

Related Products & Accessories

L-com can also supply related products for your antenna system and installation requirements, such as:

- Low Loss Coax Cable, Connectors, Adapters and Assemblies
- Low PIM Coax Cable, Connectors, Adapters and Assemblies
- Coax Lightning Protectors
- Amplifiers, Splitters, Filters and WAPs
- Antenna Mounts, Kits, Radomes, Spare Parts and Tools

Custom Cable Assembly Configurator

L-com's Custom Cable Assembly Configurator allows you to create Low Loss, Low PIM and RG Series style coaxial cable assemblies.



http://www.l-com.com/productconfigurator.aspx

EASY ORDERING

Standard Antenna Part Numbering System

The chart below is provided as a reference to help you understand L-com's standard antenna part numbers. From a single part number, you can obtain information such as antenna series and type, frequency, gain and connector options. Please note that, while L-com inventories thousands of antenna products, not all option combinations may be available. Some options may be offered as modified or custom antenna orders. Please contact our sales team to discuss your requirements at **1-800-341-5266**.

ANTENNA SINGLE BAND SERIES FREQUENCIES		ANTENNA TYPES		CONNECTOR OPTIONS ³			
CODE	DESCRIPTION	CODE	FREQUENCY	CODE	DESCRIPTION	CODE	DESCRIPTION
HGV	Value Series	4XX ¹	400 MHz	Parabolic G	rid Antennas	NF	N-Female
HG	Standard Series	8XX 1	800 MHz	EG	Economy Series	NM	N-Male
нк	Sectorial Array Series	9XX 1	900 MHz	G	Standard Series	SM	SMA Male
		12X X 1	1.2 GHz	Dish Anten	nas	SF	SMA Female
		19XX ¹	1.9 GHz	D	Standard Series	ТМ	TNC Male
		24XX ¹	2.4 GHz	DPD	Dual Polarized Series	TF	TNC Female
		26XX 1	2.6 GHz	Panel/Pate	ch Antennas	ВМ	BNC Male
		35XX 1	3.5 GHz	Р	Standard Series	BF	BNC Female
		49XX1	4.9 GHz	PCL	Left Hand Circular Polarized Series	RNP	Reverse Polarity N Plug
		53XX 1	5.3 GHz	PCR	Right Hand Circular Polarized Series	RNJ	Reverse Polarity N Jack
		54XX1	5.4 GHz	DP	Dual Polarized Series	RSP	Reverse Polarity SMA Plug
		58XX 1	5.8 GHz	SD/DS	Spatial Diversity Series	RSJ	Reverse Polarity SMA Jack
				ХР	Cross Polarized Series	RTP	Reverse Polarity TNC Plug
		DUA	L/WIDE BAND	PEV	Panel Enclosure Antenna Series	RTJ	Reverse Polarity TNC Jack
			REQUENCIES	Sectorial A		RBP	Reverse Polarity BNC Plug
				P-XXX ²	Standard Series	RBJ	Reverse Polarity BNC Jack
		CODE 824	FREQUENCIES	SXP-XXX ²	Spatial Diversity/Cross Polarized Series		
		024 727	800-2500 MHz	SP-XXX ²	Vertical Polarized Series		
		727	700/2700 MHz	HSP-XXX ² DP-XXX ²	Horizontal Polarized Series		
		2458	700/6000 MHz 2.4/5.8 GHz	XP-XXX ²	Dual Polarized Series Cross Polarized Series		FOOTNOTES
		2456 5158	5.1-5.8 GHz		cross Polarizea Series		
		3130	3.1 3.0 0112	U	Standard Series	1 XX =	Gain (dBi)
		UP	MINI PRO Series	2 XXX = Beam Width Degree			
SINGLE FREQUENCY ANTENNA		U-PRO	PRO Series		(090 = 90°, 120 = 120°, 180 = 180°)		
H G 2 4 1 5 E G - N F			DPU	Dual Polarized Series	³ Number before connector type indicates		
				UDT	Electrical Down Tilt Series		na with multiple connectors IF = Three N-Female connectors)
			•	UR	Radome Enclosed Mobile Series		
₽ I	(2. S		CONNECTOR	MGU	Magnetic Mount Series		
臣			Z	MGURB	Black Radome Enclosed Magnetic Mount Series		
	ANTENNA TY GAIN (dBi) SINGLE BAN FREQUENO 2.4 GHZ SHO		CT	MGURW	White Radome Enclosed Magnetic Mount Series		Online Antenna Product
s	A TYPE (dBi) JENCY SHOWI		O R	UM	Marine Series		Selection Wizard
R	(TYPE		ТҮРЕ	PU	Embedded PCB Series	C I .	
ŝ	3		m		unt Omni-directional Antennas		the right antenna and connector
				CU	Standard Series	· ·	ed and order it online by using our
				CUPR	Low PIM Series		shopping cart. Visit our Antenna t Selection Wizard at:
	DUAL FREQUEN	ICY ANTEI	NNA	DPCUPR	Dual Polarized / Low PIM Series	Froduc	t Selection Wizdra at:
HG	2 4 5 8 - 3	SD	C - 3 N F	SDC	Spatial Diversity Series		TEL MOUTH TEL
				Yagi Anten			
	N			Y	Standard Series		REFER
≥	ECC (5.	×	6	SY YE	Stainless Steel Series Aluminum Series		720 6 6 6 4 6
ANTENNA SERIES	GAIN (dBi) SECOND FREQUENCY (5.8 GHz SHOWN) FIRST FREQUENCY (2.4 GHz SHOWN)	ANTENNA TYPE	CONNECTOR TYPE		c Antennas		
ZZ	GAIN (dBi) ND FREQUE GHz SHOW GHz SHOW	Z	C	Log Periodi LP	Standard Series		
Ā	REG SH	×	O		ck Antennas	-	
SER		TYP	YT .	RD	Rubber Duck	http://www.l-	com.com/productfinder/finder.aspx?FinderID=1
IES	ZQ ZZ	m	n n n n n n n n n n n n n n n n n n n	RDR	Rigid Rubber Duck		
	~			MGRD	Magnetic Mount Rubber Duck		
				-	, č		

5

WIRELESS... IT'S ALL ABOUT CONNECTING

Single Source Convenience

The L-com line of wireless solutions includes antennas, bi-directional amplifiers, surge and lightning protectors, splitters, filters, PoE products, coax connectors, assemblies and NEMA rated enclosures.

With this "one-stop shop" convenience feature, L-com customers can find everything they need for their wireless system and installation projects.

L-com also offers an "*Engineered Solutions*" program to tailor a bill of goods or system solution to each customer's special requirements. This value-added service is unique only to L-com, where deep inventory, access to engineering experts and fast delivery programs are the norm.



CUSTOM PCB ANTENNA SOLUTION FOR BIOMETRIC SECURITY

BACKGROUND

This L-com customer is in the biometric identification industry, providing a variety of related products to its customers in finance, transportation, telecommunications and government sectors.

<u>Problem</u>

The customer required a dual band, PCB-style, Omni-directional antenna for their Point-of-Sale (POS) wireless hand-held payment system. The antenna needed to be cost-effective, space saving and provide seamless wireless connectivity in their OEM application.

<u>Solution</u>

L-com designed a custom antenna solution that met the customer's size and performance requirements, as well as cost and delivery targets. L-com was also able to provide product samples in a minimal time frame, faster than competitors. L-com's custom antenna was tested against others and proved to be far superior in range of coverage.



OFF-THE-SHELF NETWORK SOLUTION FOR SYSTEMS INTEGRATOR

BACKGROUND

Union Electrica is a specialist in system design, integration and installation for transportation, communication and energy industries in Latin America. They were to deploy a WiMAX network in Medellin, Columbia, with over 1,200 subscriber points.

<u>Problem</u>

The system requirements included 3.5 GHz frequency, all weather operation, focused directional wireless connectivity, low loss cable assemblies, lightning and surge protectors.

<u>Solution</u>

L-com provisioned all needs by delivering off-the-shelf 3.5 GHz Dish Antennas, coax cabling and coaxial surge protectors, saving the customer time and cost. In addition, L-com provided other COTS antennas and accessories for this project. Union Electrica was able to procure their equipment immediately to meet their aggressive installation schedule.

For More Information on Antenna Solutions for Wireless Systems

Visit our website at www.L-com.com for a wealth of information to help you identify the type of antenna you need for your application.

Here you will find:

- FAQs
- Glossaries
- Additional Case Studies
- Product Manuals
- Technical BriefsArticles

Installation Guides

And More

Download any of the following free L-com white papers at: http://www.l-com.com/content/technicalresources.html?cmp=topmenu

- "Choosing the Right WiFi Antenna for your Application"
- 2. "WiFi Antenna Best Practices"
- **3.** "Wireless Antenna Mounting Options"
- "Antenna Installation Considerations"
 "Industrial Wireless Mesh
- Network Architectures"





CUSTOM ANTENNA ASSEMBLY FOR MARINE VESSELS

BACKGROUND

GEOSat, a communications manufacturer and systems integrator for the marine industry, provides long-range Internet access to recreational and commercial vessels, as well as marina operations, from shore-based "hot spots."

<u>Problem</u>

GEOSat needed a rugged weatherproof outdoor Omni-directional antenna for its latest wireless communications platforms. It required use of the 2.4 GHz WiFi frequency band, and the materials needed to withstand harsh outdoor environmental conditions, typical for marine use.

<u>Solution</u>

L-com's engineering team developed a custom Omnidirectional antenna to meet GEOSat's exact requirements. It featured a Stainless Steel end cap and base, as well as a durable UV-stable fiberglass radome for all-weather operation. Additionally, the antenna featured an integral N-female connector, as well as a rugged mast mounting bracket.



BACKGROUND

Mueller Systems provides smart metering solutions for suppliers of water, gas and/or electricity to its customers. They enable a range of capabilities, from fully automated meter reading to billing systems, on a very efficient data network for utilities and municipalities.

Problem

Mueller Systems required a high-performance and robust 900 MHz Omni-directional Antenna for its system. The antenna also needed to integrate with Mueller's repeaters, be able to withstand the elements and support Non Line of Sight (NLOS) and mobile applications, where high gain and wide coverage is required.

<u>Solution</u>

After consulting with Mueller's engineers and reviewing all requirements, L-com provided its HGV-906U, an all-weather Omni-directional antenna, as an off-the-shelf solution. L-com also provisioned the project with low loss coaxial cables to connect the antenna to the repeaters.

L-com ANTENNA SOLUTIONS FOR ANY NEED



L-com CONTACT & ORDERING INFORMATION

Call Center and Technical Support

Hours of Operation Monday - Friday 8am - 8pm ET

Phone and Fax Contact Center 1-800-341-5266 Direct Line 1-978-682-6936 24 hour Fax 1-978-689-9484

E-Mail

Account Reps Customer Service

sales@l-com.com customerservice@l-com.com Product/Tech Support support@l-com.com

Online Ordering 24/7

www.l-com.com



