Wireless Antennas for Any Need:

- Frequency
- Direction
- Environment
- Gain
- Connection

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

<table>
<thead>
<tr>
<th>WIRELESS TYPE</th>
<th>WIRELESS APPLICATIONS</th>
<th>ANTENNA TYPE</th>
</tr>
</thead>
</table>
| Point to Point / Bridge | - Educational Campuses  
- Business Complexes  
- Resorts and Theme Parks  
- Transportation Terminals  
- Wireless Back-haul | - Dish  
- Grid  
- Yagi  
- Log Periodic  
- Patch/Panel |
| 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 |
| SCADA                | - Oil and Gas Industry  
- Power Plants  
- Agriculture  
- Environmental  
- Waste Control | - Grid  
- Patch/Panel  
- Omni-directional  
- Yagi |
| Mobile Wireless      | - 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

OMNI-DIRECTIONAL ANTENNAS

Rubber Duck   Omni-directional   Antenna Arrays   DAS   MIMO   Marine   Mobile Mount   Ceiling

DIRECTIONAL ANTENNAS

Yagi   Grid   Sector   Patch/Panel   Dish   Embedded PCB   Log Periodic   MIMO

Antenna Solutions Providing Faster, Easier Deployment With Confidence

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
- 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

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.

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.

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.

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<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>CODE</th>
<th>FREQUENCY</th>
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<tr>
<td>HGV</td>
<td>Value Series</td>
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<td>Parabolic Grid Antennas</td>
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<tr>
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<td>900 MHz</td>
<td>Standard Series</td>
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<td>1.2 GHz</td>
<td>Dish Antennas</td>
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<td>19XX</td>
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<td>1.9 GHz</td>
<td>Standard Series</td>
<td></td>
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<tr>
<td>24XX</td>
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<td>2.4 GHz</td>
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<td>5.4 GHz</td>
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<td>824</td>
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<td>727</td>
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ANTENNA SERIES

SINGLE BAND FREQUENCIES

DUAL/WIDE BAND FREQUENCIES

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FOOTNOTES

1 XX = Gain (dB)
2 XXX = Beam Width Degree
3 Number before connector type indicates antenna with multiple connectors (e.g. 3NF = Three N-Female connectors)

Online Antenna Product Selection Wizard

Select the right antenna and connector you need and order it online by using our handy shopping cart. Visit our Antenna Product Selection Wizard at:

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.

CASE STUDY #1

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.

Problem

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.

Solution

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.

CASE STUDY #2

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.

Problem

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

Solution

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
- Installation Guides
- Technical Briefs
- Articles
- And More

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

1. “Choosing the Right WiFi Antenna for your Application”
2. “WiFi Antenna Best Practices”
3. “Wireless Antenna Mounting Options”
4. “Antenna Installation Considerations”
5. “Industrial Wireless Mesh Network Architectures”

CASE STUDY #3

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.”

Problem

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.

Solution

L-com’s engineering team developed a custom Omni-directional 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.

CASE STUDY #4

COTS ANTENNA PRODUCTS ENABLE SMART METERING SYSTEM

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.

Solution

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 CONTACT & ORDERING INFORMATION

Call Center and Technical Support

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<tr>
<th>Hours of Operation</th>
<th>Phone and Fax</th>
<th>E-Mail</th>
<th>Online Ordering 24/7</th>
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</thead>
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<tr>
<td>Monday - Friday 8am - 8pm ET</td>
<td>Contact Center 1-800-341-5266</td>
<td>Account Reps <a href="mailto:sales@l-com.com">sales@l-com.com</a></td>
<td><a href="http://www.l-com.com">www.l-com.com</a></td>
</tr>
<tr>
<td></td>
<td>Direct Line 1-978-682-6936</td>
<td>Customer Service <a href="mailto:customerservice@l-com.com">customerservice@l-com.com</a></td>
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<td></td>
<td>24 hour Fax 1-978-689-9484</td>
<td>Product/Tech Support <a href="mailto:support@l-com.com">support@l-com.com</a></td>
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