

WLAN Amplifiers



WLAN Amplifiers Tutorial

■ What are Amplifiers?

Wireless LAN Amplifiers are a type of electronic amplifier used to convert a low-power radio-frequency signal into a larger signal of significant power, typically used for driving the antenna of a transmitter.

■ How are Amplifiers used?

Wireless LAN Amplifiers are typically connected via low loss coaxial cable to a radio on one end and then to either a splitter or filter and then to an antenna. Sometimes they are connected directly to an antenna when a filter or splitter is not required.

■ Where are Amplifiers used?

Wireless LAN Amplifiers are used in wireless communications networks for public, private, military and government applications. Amplifiers can be used indoors and outdoors exposed to the elements or used in an equipment enclosure.



For more useful information go to....
www.L-com.com/Resources

L-com's HyperGain Series amplifiers support the following frequencies and applications

| Frequency | Application |
|-----------|-------------------------------------|
| 900 MHz | RFID, ISM, SCADA |
| 2.4 GHz | 802.11b,g,n WLANs |
| 4.9 GHz | Homeland Security and Public Safety |
| 5.8 GHz | 802.11a WLANs |

The power rating of an WLAN Amplifier is typically measured in kilowatts, milliwatts and watts. The higher the wattage the stronger the signal amplification.

Our HyperGain Series amplifiers support the following output power

| | | | | |
|--------|--------|--------|---------|---------|
| 100 mW | 1 Watt | 4 Watt | 8 Watt | 25 Watt |
| 250 mW | 2 Watt | 5 Watt | 10 Watt | |
| 500 mW | 3 Watt | 6 Watt | 20 Watt | |

Automatic Power Control (APC)

The key requirements of bi-directional amplifiers for use with the new high data rate 802.11a/g/n radios is Automatic Power Control (APC), fast switching speed and good linearity. A 802.11a/g/n radio is very sensitive to signal distortion. Older amplifiers designed for use with 802.11b radios will not function properly with the newer radios. In 2002, we were the first company to offer an 802.11g bi-directional amplifier with APC. The use of a competitor's fixed gain amplifier with the new rate 802.11a/g/n radio is guaranteed to degrade radio or range performance. L-com's APC will hold transmit power constant regardless of data rate.

Amplifier products are available for export, military, licensed amateur radio (ham radio) and OEM component sales only and as part of complete FCC Certified Systems. Individual amplifier products are not offered for sale in the USA.

Please note that additional documentation may be required to purchase a HyperLink brand amplifier. In those cases an L-com sales associate will contact you to complete your order.

