

HyperLink Wireless brand 5.8 GHz 802.11a, ISM and UNII Compatible Full Band Ultra High Q 4-Pole Bandpass Filter - Model: BPF5800A

### **Features**

- Ultra-High Quality Microwave Cavity Filter
- Ultra Low Insertion Loss (0.5 dB nominal)
- Reduce Interference and Improve Performance
- Industrial Grade
- Rugged Aluminum Weatherproof Construction for Outdoor or Indoor Use
- 150 MHz Bandwidth
- Provides Lightning Protection (DC Short)
- Ideal for high data rate 802.11a, ISM and UNII Wireless LAN applications
- Ideal for Minimizing Adjacent Channel Interference
- Compact Size
- N-Female Connectors
- Optional Mast Mounting Kit Available



## **Description**

### **Superior Performance**

The HyperLink 5.8 GHz 4-Pole Ultra-High Q full band channel filter is ideal for co-located equipment installations. This filter is designed for full band applications. By reducing interference outside the 5800 MHz ISM band, improved performance of co-located equipment can be achieved. These bandpass filters are wide enough to pass high data rate 802.11a signals without degradation. The BPF5800 features rugged aluminum weatherproof construction and can be used indoors or outdoor.

# **Specifications**

Center Frequencies	5800 MHz
Out of Band Rejection	> 6 dB @ 5570 MHz > 6 dB @ 6030 MHz
Bandwidth	150 MHz
Insertion Loss	0.5 dB nominal
Passband Ripple	< 1.0 dB
Return Loss	> 10 dB
Impedance	50 Ohm
Power Handling	50 Watts
Connectors	(2) N-Female
Number of Cavities	4
Operating Temperature	-40° F to 185° F (-40° C to +85° C)
Dimensions	2.3" x 2.3" x 1.1" (58 x 58 x 28 mm)
Weight	0.69 lbs. (0.31 Kg)



## **Optional Mast Mounting Kit**

Model	Description
HGX-PMT14	Mast Mounting Kit for HyperLink outdoor filters. For mounting to 1-1/4" (31.7mm) to 2" (51mm) dia. masts. This kit contains an aluminum mounting bracket, zinc plated steel 1/4-20 x 2" u-bolt with serrated flange nuts and filter mounting hardware.

### **Guaranteed Quality**

This product is backed by L-com's Limited Warranty.

# Bandpass Filter Q & A

Question: Why do I need a Hyperlink Ultra High Q band pass filter?

#### Answers

- To reduce interference thus improving radio reception.
- To increase performance of co-located equipment.

Question: What is interference and why do I want to eliminate it?

## Answers:

- Interference is caused by transmission sources near the channel you are transmitting on. It can be identified by signal strength and frequency.
- Unwanted transmissions, interference, may confuse your receiver or cover up the signal you are trying to receive.

Question: How do the Hyperlink Ultra High Q band pass filters work?

## Answers:

- The filter will only pass the frequency, channel, you are transmitting or receiving and reduce the interference of signals outside your channel.
- The filter will NOT reduce interference on your channel caused by other signals or users on the same channel.

# Question: What is meant by channel filtering?

## Answers:

- The passing of one channel while rejecting all other non-overlapping channels.
- The isolation of between channels when installing co-located equipment.
- The protection against signals outside your band such as cellular.

## Question: What is the difference between the number of poles?

### Answers:

- Each pole represents a filtering circuit. The more poles, the more filtering strength.
- The 4-pole band pass filters are recommended to filter out weaker interference signals.
- The 8-pole band pass filters are recommended in high WiFi zones or zones with strong RF signals.