

# RF Filters / Splitters



## RF Filters / Splitters Tutorial

### What are RF Filters?

RF Filters reduce out of band interference and improve performance of co-located equipment. An RF Filter will only pass the frequency and channel you are transmitting or receiving and reduce the interference of signals outside your channel. Interference is usually caused by transmission sources near the channel you are transmitting on.

L-com's RF Filters are available in full band versions or fixed channel versions, and provide excellent channel rejection. All filters feature rugged aluminum construction and are available for indoor or outdoor applications.

### What are RF Splitters/Combiners?

An RF Splitter/Combiner is a transmission component which divides or sums power between two or more ports. Typically they are used for connecting more than one antenna to a single radio and can also be used to connect multiple radios to a single antenna using the same frequency.

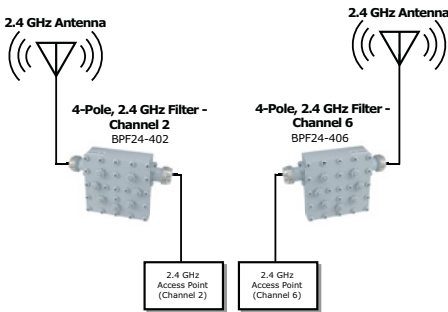
### What are RF Diplexers?

An RF Diplexer is a device that combines two signals onto a single transmission line. In general the two signals operate at different frequencies. L-com's Diplexers are designed to split 2.4 GHz and 5 GHz from a single radio feed to separate 2.4 GHz and 5 GHz antennas. Many dual-band 802.11a/b/g radios share a single antenna. These devices split these signals so that two separate 2.4 GHz and 5 GHz antennas can be used to improve performance. In addition, L-com Diplexers can also be used to combine 2.4 GHz or 5 GHz signals onto a single cable.



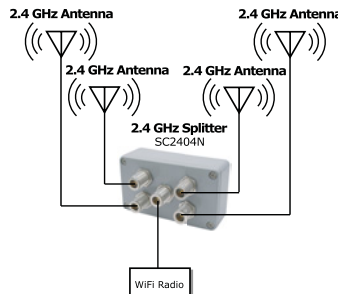
For more useful information go to...  
[www.L-com.com/Resources](http://www.L-com.com/Resources)

### Typical RF Filter Application



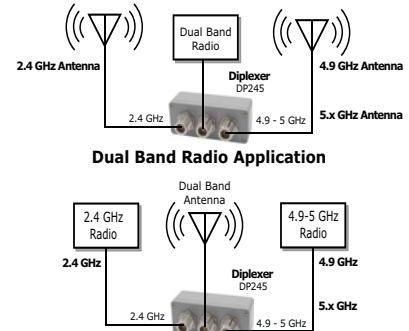
2.4 GHz Bandpass Channel Filter Application

### Typical RF Splitter Application



4-Way Signal Splitter Application

### Typical RF Diplexer Applications



Dual Band Antenna Application



Item #	Description	1-9	10-24	25-99	100-249	250-499
<b>HyperGain® 800 MHz, 900 MHz, 2.4 GHz, 3.5 GHz and 5.8 GHz Signal Splitters/Signal Combiners</b>						
L-com's HyperLink brand signal splitters/signal combiners are used for connecting more than one antenna to a single radio. They feature weatherproof construction and can be installed indoors or outdoors. These flexible splitters can be used with amplified systems since they will pass DC power to all ports. HyperGain® WLAN signal splitters/signal combiners are available in 2-way, 3-way and 4-way models and are available with N-Female and RP-TNC jack connectors.						
<b>✓RoHS 800-2600 MHz Broadband Signal Splitters</b>						
<a href="#">SCW02N</a>	2-Way, NF Connectors	39.99	35.99	31.99	27.99	23.99
<a href="#">SCW03N</a>	3-Way, NF Connectors	59.99	53.99	47.99	41.99	35.99
<b>✓RoHS 900 MHz Signal Splitters</b>						
<a href="#">SC902N</a>	2-Way, NF Connectors	49.99	44.99	39.99	34.99	29.99
<a href="#">SC903N</a>	3-Way, NF Connectors	59.99	53.99	47.99	41.99	35.99
<b>✓RoHS 2.4 GHz Signal Splitters</b>						
<a href="#">SC2402N</a>	2-Way, NF Connectors	39.99	35.99	31.99	27.99	23.99
<a href="#">SC2402RTM</a>	2-Way, RP-TNC Connectors	49.99	44.99	39.99	34.99	29.99
<a href="#">SC2403N</a>	3-Way, NF Connectors	59.99	53.99	47.99	41.99	35.99
<a href="#">SC2403RTM</a>	3-Way, RP-TNC Connectors	69.99	62.99	55.99	48.99	41.99
<a href="#">SC2404N</a>	4-Way, NF Connectors	69.99	62.99	55.99	48.99	41.99
<b>✓RoHS 3.5 GHz Signal Splitters</b>						
<a href="#">SC3502N</a>	2-Way, NF Connectors	39.99	37.99	35.99	33.99	CALL
<a href="#">SC3504N</a>	4-Way, NF Connectors	69.99	66.49	62.99	59.49	CALL
<b>✓RoHS 5.8 GHz Signal Splitters</b>						
<a href="#">SC5802N</a>	2-Way, NF Connectors	99.99	89.99	79.99	69.99	59.99
<a href="#">SC5804N</a>	4-Way, NF Connectors	159.99	143.99	127.99	111.99	95.99
<b>✓RoHS Accessories</b>						
<a href="#">ANM-TERM1</a>	N-Male 50-Ohm Terminator, 0-6 GHz	7.99	7.67	7.35	6.79	5.99
<a href="#">HGX-PMT14</a>	Splitter Mast MNT Kit, 1-1/4in to 2in Diameter	12.99	11.69	10.39	9.09	CALL
<a href="#">HGX-AMOUNT02</a>	Splitter Wall/Enclosure MNT Kit	9.99	8.99	7.99	6.99	5.99