



ANATECH ELECTRONICS INC
RF & Microwave Filters & Products

SHORT FORM CATALOG



CONTACT US TODAY! SALES@ANATECHELECTRONICS.COM

973.772.4242

ANATECH ELECTRONICS, INC. 70 Outwater Lane, Garfield, New Jersey 07026

anatechelectronics.com

ABOUT US

Anatech Electronics, Inc. (AEI), is a privately-held, ISO9001 Certified company founded in January of 1990 that focuses on the design and manufacturing of RF and microwave filters and related products. Our broad array of products is used in commercial, aerospace and defense, and industrial applications throughout the world. We specialize in rapidly responding to customer needs, creating cost-effective solutions to meet them.



APPLICATIONS WE SERVE

Our products are used in a broad array of applications, such as:

- Wireless communication systems
 - Defense electronic systems (electronic warfare, electronic countermeasures, radar, and communications)
 - Public safety
 - Medical systems
 - GPS navigation systems
 - Satellite communications terminals
 - IEEE 802.11a/b/g/n WiFi systems
 - Point-to-point microwave links
- ... And many others.

PRODUCTS FOR DEFENSE APPLICATIONS

The aerospace and defense industry is one of AEI's primary markets, and it has developed the capabilities, facilities, and quality control procedures required by defense customers. Anatech Electronics (AEI) is an ISO9001-2008 certified company, and also follows the guidelines of MIL-STD-45208A and MIL-F-18327. AEI is a registered supplier with Aerospace Corp., L-3 Communications, BAE Systems, Boeing, General Dynamics, Harris Corp., Lockheed Martin, NAVSUP, Northrop Grumman, Peterson Air Force Base, Raytheon, Rockwell Collins, SPAWAR, and other defense contractors.

CAPABILITIES AND FACILITIES

AEI's capabilities include a technical staff with many decades of experience in RF and microwave design, which is supported by highly-qualified sales engineers, administrators, quality control, marketing, IT, and accounting staff. The company maintains a full manufacturing facility, geared for low and high volume manufacturing and testing.

CONTENT

STANDARD & CUSTOM RF FILTERS

BANDPASS FILTERS

Cavity Bandpass & Ceramic Bandpass	3
Connectorized Ceramic Bandpass	3
Surface Mount LC Bandpass	4
Crystal Bandpass	4
LC Bandpass & Saw Bandpass	4

DUPLEXERS

Cavity Duplexers	5
Ceramic Duplexers	5
LC Duplexers	5
SAW Duplexers	6
Connectorized Ceramic Duplexers	6

BANDPASS FILTERS

Bandpass-LNA	6
Duplexers-LNA	7

Multi-band Cavity Multiplexers/Combiners	7
Multi-band Ceramic Multiplexers/Combiners	7
LC Lowpass	8
Surface-Mount LC Lowpass	8
LC Highpass	8
Surface-Mount LC Highpass	9
LC Bandstop	9
Helical Filters Series	10
Key Definitions	11
More About AEI	14
Ordering	15



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**Bring us your challenge,
we'll provide the answer!**

EMAIL: sales@anatechelectronics.com
PHONE: (973) 772-4242
WEB: www.anatechelectronics.com

AEI BANDPASS FILTERS

Anatech Electronics (AEI) bandpass filters are available from 10 kHz to 40 GHz with 2 to 15 sections with bandwidths ranging from 0.5% to 100%. The most commonly used topology types are Chebyshev, Butterworth, Elliptic and other special topologies are also used depending on the requirements. Our designs are optimized to reduce package size as much as possible, while keeping the insertion loss to a minimum, and meet the electrical requirements with a reasonable margin. Our proprietary design techniques allow us to design very complex filters for a broad range of bandwidths from very narrow to very wide, with excellent performance, such as very sharp passband to stopband transition, high power handling, and very low insertion loss. The filters can be optimized for other performance parameters such as group delay variation, amplitude matching, and phase matching.

CAVITY BANDPASS

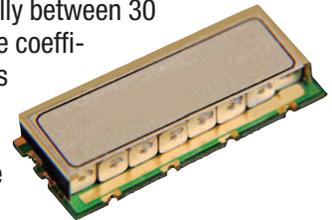
Anatech Electronics cavity bandpass filters are available in a wide range of frequencies, power levels, bandwidths, and rejection. The resonators and cavities are silver plated for low RF resistivity, in order to achieve low insertion loss and high selectivity. Filter size depends on performance requirements, frequency of operation, RF power handling, insertion loss, and number of sections. AEI uses the best topology required to achieve the requirements. The cavity bandpass filters range in length from 1 in. to more than 18 in., depending on number of sections, insertion loss, power handling, and center frequency. Packaging and mounting options include surface mount, connectorized, printed circuit board mount, and drop-in. AEI offers a broad range of customization possibilities, from electrical characteristics to size, mounting, and weatherization.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package styles	Operating temp. (deg.C)	Shock	Vibration
20-40000	0.3 to more than 100	2 to 15	1.5:1	50	500	Connectorized PC Mount, Drop In	-55 to +85	30G, 11ms	20G, 5-200Hz

CERAMIC BANDPASS

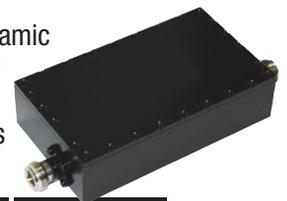
AEI's ceramic bandpass filters deliver extremely high performance and reliability and serve a broad array of applications from 400 to 6500 MHz. Their size depends on the dielectric constant of the ceramic resonator (typically between 30 and 90), and the lower the dielectric constant the larger the resonator and the better the temperature coefficient (and vice versa). Ceramic bandpass filters can be made from discrete ceramic resonators or as a single piece of ceramic material called a "monoblock" structure. Monoblock ceramic filters are best suited for high-volume applications in which their higher manufacturing cost can be amortized over a large number of devices. Other than reduced size, monoblock ceramic filters have performance nearly identical to that of their discrete counterpart.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package styles	Operating temp. (deg.C)	Shock	Vibration
400-6500	2 to 35	2 to 8	1.5:1	50	5 to 8	Surface Mount	-55 to +85	20G, 11ms	10G, 5-200Hz

CONNECTORIZED CERAMIC BANDPASS

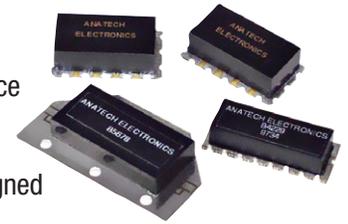
Connectorized ceramic bandpass filters have the same performance and characteristics as their SMT ceramic bandpass filter counterparts except that they are conveniently enclosed inside a connectorized metal enclosure. This makes them usable in both indoor and outdoor applications when housed in a weather-proof enclosure, and they can withstand extreme environmental conditions. Connectorized ceramic filters can be fitted with SMA, Type-N, SMC, SMB, F, or TNC connectors in any combination.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package styles	Operating temp. (deg.C)	Shock	Vibration
400 to 6500	2 to 35	2 to 8	1.5:1	50	5 to 8	Connectorized	-55 to +85	20G, 11ms	10G, 5-200Hz

SURFACE MOUNT PC BANDPASS

AEI surface-mount (SMT) PC bandpass filters are small, rugged designs that are an excellent choice when cost and size are primary considerations. Their frequency range is 10 to 500 MHz, they can have between 3 and 6 sections, and can handle up to 20 W. Size depends on operating frequency and number of sections and is typically between 1 and 2.5 inches. They are typically designed in a Chebyshev 0.05 dB type topology.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
10 to 500	2 to 20	2 to 7	1.5:1	50	20	Surface Mount	-55 to +85	10G, 11ms	10G, 5-200Hz

CRYSTAL BANDPASS

Crystal bandpass filters use the piezoelectric effect of quartz crystals and convert mechanical motion into electric signals. The low thermal expansion of quartz crystals allows crystal filters to produce stable performance over a wide temperature range. AEI crystal filters exhibit extremely high Q factor, giving them the ability to achieve extremely narrow bandwidth in the range of a few kHz. Such a high Q factor, in the range of 5000 and higher than 10000 results in relatively low loss considering their extremely narrow bandwidth. The crystal bandpass filters are available in frequencies up to 250 MHz, in connectorized, surface mount, PC board mount, and drop-in type packages, with a length ranging from approximately 1 to 5 in.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
4.74 to 250	<=0.03	2 to 8	1.5:1	50	8	Connectorized, SMT, PC Mount, Drop In	-55 to +85	20G, 11ms	10G, 5-200Hz

LC BANDPASS

Lumped-element (LC) bandpass filters range in frequency from 10 kHz to 2500 MHz, and are based on LC tank circuits consisting of parallel or series inductors and capacitors. They are relatively small and are optimized to achieve peak performance within a given set of specifications and mechanical requirements. AEI LC filters are designed to achieve very high Q, low insertion loss, and high selectivity. Standard responses include Chebyshev, Butterworth, elliptic, and Bessel and special filter shapes are available as well. They range in length from 0.5 inch to more than 10 inches, depending on the frequency, power requirements, and performance. Packaging options include surface mount, connectorized, printed circuit board mount, and drop-in. Custom mechanical configurations, and special requirements, such as group delay variation, amplitude matching, phase matching, and tracking can be specified.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
0.1-2500	3 to more than 100	2 to 16	1.5:1	50 or 75	300	Connectorized, SMT, PC Mount, Drop In	-55 to +85	20G, 11ms	10G, 5-200Hz

SAW BANDPASS

Surface acoustic wave (SAW) bandpass filters employ the piezoelectric effect to convert an electromagnetic signal into an acoustic signal and vice versa. SAW bandpass filters provide sharp cut-off, very linear phase characteristics, high stability, and are highly reliable. Electrical signals are converted to a mechanical wave in a device constructed of a piezoelectric crystal or ceramic, and the wave is delayed as it propagates across the device before being converted back to an electrical signal. The delayed outputs are recombined to produce a direct analog implementation of a finite impulse-response filter. AEI offers a very broad range of SAW bandpass filters that can be specified for operating frequencies from 4.75 MHz up to 6 GHz. They are extremely compact surface-mount devices and typically measure 2 x 2 x 2 mm, and can be as long as 50 mm in length.



Frequency Range (MHz)	3dB Bandwidth (%)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package styles	Operating temp. (deg.C)	Shock	Vibration
4.75-6000	2 to 10	1.5:1	50	0.5	Surface Mount	-45 to +85	20G, 11ms	10G, 5-200Hz

AEI DUPLEXERS

Anatech Electronics (AEI) duplexers are custom products that combine receive and transmit channels to allow a single antenna to be used, as well as splitting the received RX, and TX signals. They are available with operating frequencies of 1 MHz to 17 GHz and in 2 to 15 sections with isolation up to 100 dB, and RF power handling ability of 500 W or more. Technologies used are cavity, ceramic, LC, and SAW. Duplexers designed specifically for commercial and military wireless applications, such as GSM, PCS, WCDMA, LTE, and Wi-Fi, as well as multi-band applications are available in custom and standard models. AEI will match the specification, and form-fit factor of duplexers from other manufacturers as well. AEI duplexers can be manufactured with SMA, Type-N, BNC, TNC, SMC, SMB, 7/16 connectors. Duplexers are also available in surface mount, PC mount, and drop-in style enclosures. Special packaging and connectors can also be specified.

CAVITY DUPLEXERS

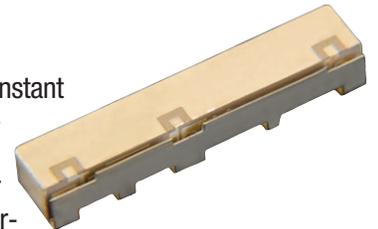
AEI cavity duplexers are available with 2 to 18 resonators and bandwidths ranging from 3% to 100%. The resonator and cavity are silver plated for low insertion loss and high selectivity. The cavity duplexers range in frequencies from 20 MHz to 20 GHz, and can handle RF power inputs up to 500 W. Duplexers are available that can withstand hostile environments encountered in outdoor installations. Standard designs use a 0.05-dB Chebyshev response and other response types such as Butterworth and elliptic are also used depending on the performance. They range in length from 1.5 to more than 10 in. depending on the insertion loss, power handling, and center frequency requirements. The duplexers are available in surface mount, connectorized, PC mount, drop-in, as well as special configurations specified by the requirements.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
20 to 40	0.7 to 50	2 to 13	30 to 120	1.5:1	50	500	Connectorized, Drop-in	-55 to +85	20G, 5-200Hz

CERAMIC DUPLEXERS

AEI ceramic duplexers are fabricated with the highest quality ceramic material with a dielectric constant between 30 to more than 90. The dielectric constant is chosen based on size and performance requirements. The lower dielectric constant ceramic material will result in higher Q factors, high temperature stability, and large size, while the high dielectric constant material will result in lower performance, lower temperature stability, but very small size. Their high Q factor leads to higher performance in a minimal size with lower insertion loss and better selectivity. AEI ceramic duplexers are available in surface mount packages, as well as connectorized packages available on request. The size of a ceramic duplexer depends on the frequency range, insertion loss, and selectivity of the filter and can range in length from 10 to 80 mm.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
400 to 6500	2 to 35	2 to 8	25 to 80	1.5:1	50	5 to 8	Surface Mount	-45 to +85	10G, 5-200Hz

LC DUPLEXERS

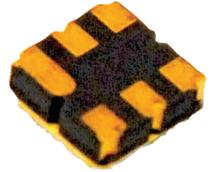
AEI LC duplexers are manufactured using inductors and capacitors with a high Q factor that results in low insertion loss and high selectivity. LC duplexers can be designed to operate from 100 kHz up to 2500 MHz and can handle up to 40 W. Standard designs use the 0.05-dB Chebyshev Butterworth, elliptic, and Bessel response topology, and other special shapes using in-house developed design tools. AEI LC duplexers range in length from 1 to more than 18 in. depending on frequency of operation, power handling, insertion loss, and other parameters. The LC duplexers are available in connectorized, surface mount, PC mount, drop-in, and any other special configurations required by the customer.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
0.1 to 2500	2 to 100	2 to 10	30 to 120	1.5:1	50 or 75	300	Connectorized, PC Mount, Drop-in, SMT	-55 to +85	20G, 5-200Hz

SAW DUPLEXERS

Surface Acoustic Wave (SAW) duplexers provide high stability and sharp rejection characteristics in a compact surface-mount package ranging in size from 3 x 3 x 2 mm to 30 x 15 x 2.5 mm. Insertion loss ranges from 1.8 dB to 6 dB with isolation ranging from 20 dB to more than 50 dB. The maximum RF power of a SAW duplexer is about 1 W.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
50 to 3500	1 to 10	Application Dependant	25 to 60	1.5:1	50	0.5	Surface Mount	-45 to +75	10G, 5-200Hz

CONNECTORIZED CERAMIC DUPLEXERS

Connectorized ceramic duplexers have the same electrical characteristics as their SMT ceramic duplexer counterparts but are housed in a connectorized metal enclosure. They can also be a lower-cost alternative to cavity duplexers in low-power applications. Connectorized duplexers have the same functionality as their SMT counterparts and are used to duplex a receive/transmit communication system, combine signals to use only one antenna in transceivers, and in many other wireless applications. Connectorized ceramic duplexers have operating frequencies between 400 MHz and 6 GHz. Their enclosure size depends on the size of the ceramic duplexer within them and is typically between 0.75 and 3.5 in. Available connectors can be SMA, Type-N, TNC, or F in any combination. Special connectors are available per customer requirement.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
400 to 6500	2 to 35	2 to 8	25 to 80	1.5:1	50	5 to 8	Connectors	-45 to +85	10G, 5-200Hz

BANDPASS-LNA

Anatech Electronics (AEI) bandpass-LNA filters and duplexer-LNA filters combine a bandpass filter or duplexer with a low-noise amplifier, bringing two essential components together in a compact, ruggedized package that is well suited for military applications from C thru Ku band (2 to 20 GHz). Some of our duplexer-LNA filters are tailored for satellite communications applications and feature increased dynamic range and receive sensitivity. LNA amplification range is up to 40 dB and noise figure is between 2 to 4 dB. Size depends on the operating frequency, selectivity, isolation (duplexer only), amplification, and power levels. Customized designs are welcome.



Frequency Range (GHz)	3dB Bandwidth (%)	Number of Sections	Gain (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Noise Figure (typ.)
2 to 20	0.7 to 50	2 to 13	10 to 50	1.5:1	50	100	Connectorized, Drop-in	-45 to +85	2 to 10

DUPLEXERS-LNA

AEI duplexer/LNAs combine a duplexer filter with the same high performance characteristics as our standard and custom duplexers with an integrated low-noise amplifier. They are well suited for both commercial and military applications. The LNA/duplexers operate in the C, X, and Ku bands (2 to 20 GHz) with isolation ranging from 30 to 90 dB. The LNA increases the dynamic range and sensitivity of the receive portion of the duplexer or when combining signals will increase the sensitivity of the receiver. The LNA/duplexers can be supplied in either connectorized or drop-in styles, with SMA or Type-N connectors in any combination. Overall package size depends on duplexer size as well as power handling ability. For space-constricted applications, AEI can optimize their performance within the confines of a given footprint.



Frequency Range (GHz)	3dB Bandwidth (%)	Number of Sections	Isolation (dB)	VSWR (typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Noise Figure (typ.)
2 to 20	0.7 to 50	2 to 13	30 to 90	1.5:1	50	100	Connectors, Drop-in	-40 to +85	2 to 3

AEI MULTI-BAND MULTIPLEXERS/COMBINERS

Anatech Electronics (AEI) multiband multiplexers provide a cost-effective solution for carriers operating in multiple frequency bands to multiplex both transmit and receive paths into a single antenna (or vice versa), or split signals from a single antenna into multiple base stations, allowing the system to accommodate a greater number of users. The units can combine or split two ways (duplexer) or three ways (triplexer) with up to six wireless bands in any combination, regardless of the wireless standard. Multiband multiplexers can be designed with cavity or ceramic filter technologies, each with advantages for specific applications. They can be used in commercial as well as military and public safety wireless systems from VHF through microwave frequencies.

MULTI-BAND CAVITY MULTIPLEXERS/COMBINERS

AEI multiband cavity multiplexers/combiners allow multiple frequency bands to be combined into one antenna or processing unit or split from a receiving antenna to multiple paths. Two bands can be combined (duplexer) or three bands (triplexer) covering up to six bands. The units have isolation from 30 to 100 dB and they can be designed with passive intermodulation distortion (PIM) as low as 165 dB. Operating frequencies range from about 30 MHz to 20 GHz. Connectors can be Type-N, SMA, 7/16-DIN, or UPC-7. Please contact us for more information or to submit your requirements.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Number of Ports	VSWR (typ.)	Isolation (dB)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
30 to 20000	0.2 to 50	2 to 13	3 to 8	1.5:1	30 to 120	50	500	Connectorized, Drop-in	-55 to +85	20G, 5-200Hz

MULTI-BAND CERAMIC MULTIPLEXERS/COMBINERS

Our multiband ceramic multiplexers allow multiple frequency bands to be combined into one antenna or processing unit or split from a receiving antenna to multiple paths. Combining or splitting two bands results in a duplexer, three bands in a triplexer, and four bands in a quadruplexer. Isolation ranges from 20 to 50 dB depending on the proximity of the bands to each other. The multiband ceramic multiplexers are designed as either surface mount or connectorized with SMA, or Type-N connectors depending on the application. Weatherproof designs for outdoor application are also available. Operating frequencies range from 400 MHz and extend to 6000 MHz. Please contact us more information or to submit your requirements.



Frequency Range (MHz)	3dB Bandwidth (%)	Number of Sections	Number of Ports	VSWR (typ.)	Isolation (dB)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Vibration
400 to 6500	2 to 30	2 to 8	3 to 5	1.5:1	20 to 50	50	5 to 7	Connectorized, or Surface Mount	-55 to +85	20G, 5-200Hz

AEI LC LOWPASS FILTERS

LC (LUMPED CONSTANT) LOWPASS FILTERS

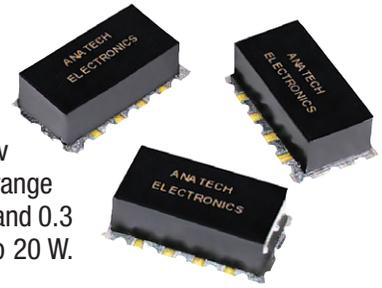
AEI lumped element (LC) lowpass filters have a high Q factor resulting in low insertion loss and high selectivity. Standard designs have a 0.05-dB Chebyshev response, Butterworth, or elliptic response are available in non-standard filter shapes. AEI LC lowpass filters range in length from 1 in. to more than 15 in. depending on the operating frequency, power handling, insertion loss, and other requirements with power handling capability up to 500 W. Special requirements such as group delay variation, phase linearity, impedance matching, and other special characteristics can also be specified. Packages can be surface mount, connectorized, PC mount, drop-in, or a mixed combination.



Cutoff Freq. range	Number of Sections	VSWR (Typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
100 KHz to 10 GHz	4 to 20	1.5:1	50 or 75	500	Connectorized, PC Mount, Drop-in	-55 to +85	30G, 11ms	10G, 5-200Hz

SURFACE MOUNT PC LOWPASS FILTERS

AEI PC SMT lowpass filters series are miniature, low-cost lumped element types that are an excellent choice when circuit board space is limited. They are highly reproducible and designed for high-volume production. The filters are manufactured with high-Q stable components that have a low temperature coefficient. Standard designs have a 0.05-dB Chebyshev response and Butterworth and elliptic responses are available. AEI PC Series lowpass filters range in frequency from 5 to 1000 MHz, and sizes are from 0.5 to 1.75 in. long, 0.3 to 0.5 in. wide, and 0.3 to 0.5 in. high, and come with either a metal or a plastic cover, with a power handling of up to 20 W. The SMT PC lowpass filters are available in tape and reel, depending on the quantities.



Cutoff Freq. range	Number of Sections	VSWR (Typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
5 to 1,000MHz	3 to 16	1.5:1	50 or 75	10	Surface Mount	-45 to +85	20G, 11ms	5G, 5-200Hz

LC (LUMPED CONSTANT) HIGHPASS FILTERS

AEI LC highpass filters exhibit a high Q factor resulting in low insertion loss and good selectivity. Standard designs have a 0.05-dB Chebyshev, Butterworth, elliptic, Bessel, or special response shapes. AEI LC highpass filters range in length from 1 in. to more than 15 in. and their width and height vary depending on the application. Maximum RF power handling ability is 500 W. The LC highpass filters are available in connectorized, SMT, PC mount, and drop-in style packages. Other configurations can be specified.



Cutoff Freq. range	Number of Sections	VSWR (Typ.)	Impedance (Ohms)	Maximum power (W)	Package styles	Operating temp. (deg.C)	Shock	Vibration
10 KHz to 10 GHz	3 to 16	1.5:1	50 or 75	500	Connectorized, PC Mount, Drop-in	-55 to +85	20G, 11ms	10G, 5-200Hz

SURFACE MOUNT PC LC HIGHPASS FILTERS

AEI lumped element (LC) lowpass filters have a high Q factor resulting in low insertion loss and high selectivity. Standard designs have a 0.05-dB Chebyshev response, Butterworth, or elliptic response are available in non-standard filter shapes. AEI LC lowpass filters range in length from 1 in. to more than 15 in. depending on the operating frequency, power handling, insertion loss, and other requirements with power handling capability up to 500 W. Special requirements such as group delay variation, phase linearity, impedance matching, and other special characteristics can also be specified. Packages can be surface mount, connectorized, PC mount, drop-in, or a mixed combination.



Cutoff Freq. range	Number of Sections	VSWR (Typ.)	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
2 to 2000	4 to 20	1.5:1	50	1 to 20	Surface Mount	-45 to +45	10G, 11ms	5-200Hz

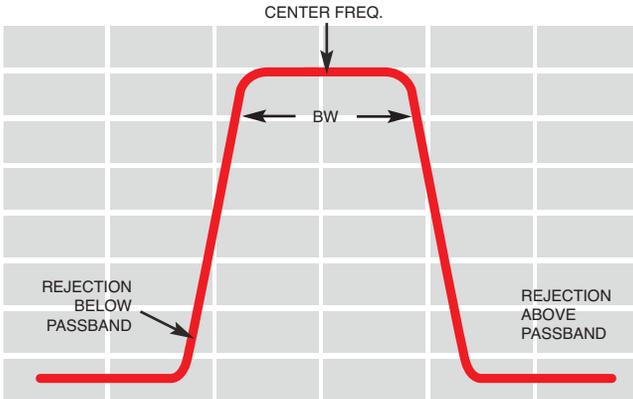
LUMPED ELEMENTS (LC) BANDSTOP FILTERS

AEI PC SMT lowpass filters series are miniature, low-cost lumped element types that are an excellent choice when circuit board space is limited. They are highly reproducible and designed for high-volume production. The filters are manufactured with high-Q stable components that have a low temperature coefficient. Standard designs have a 0.05-dB Chebyshev response and Butterworth and elliptic responses are available. AEI PC Series lowpass filters range in frequency from 5 to 1000 MHz, and sizes are from 0.5 to 1.75 in. long, 0.3 to 0.5 in. wide, and 0.3 to 0.5 in. high, and come with either a metal or a plastic cover, with a power handling of up to 20 W. The SMT PC lowpass filters are available in tape and reel, depending on the quantities.



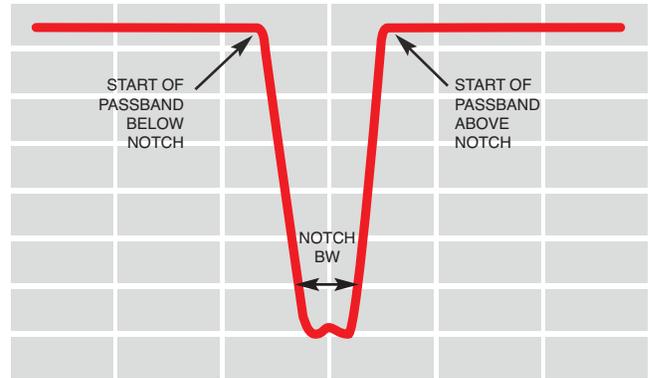
Notch Freq. range	Number of Sections	VSWR (Typ.)	Notch BW to Pass-band Ratio	Impedance (Ohms)	Maximum power (W)	Package Styles	Operating temp. (deg.C)	Shock	Vibration
1 to 1000MHz	2 to 8	1.5:1	2:1 to 10:1	50	100	Connectors, PC Mount, Drop-in	-55 to +85	20G, 11ms	10 G, 5-200Hz

TYPE OF FILTERS



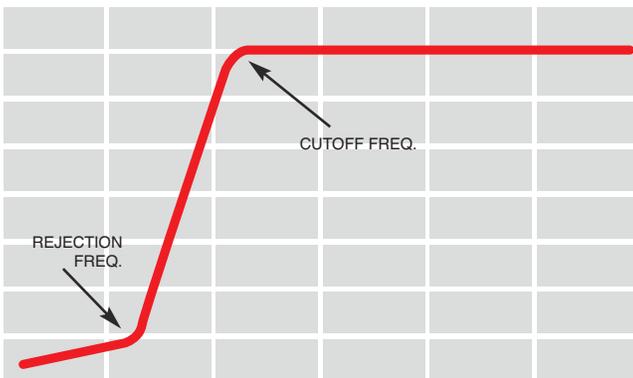
BANDPASS FILTER

A bandpass filter passes energy within a certain bandwidth and rejects frequencies below and above this bandwidth.



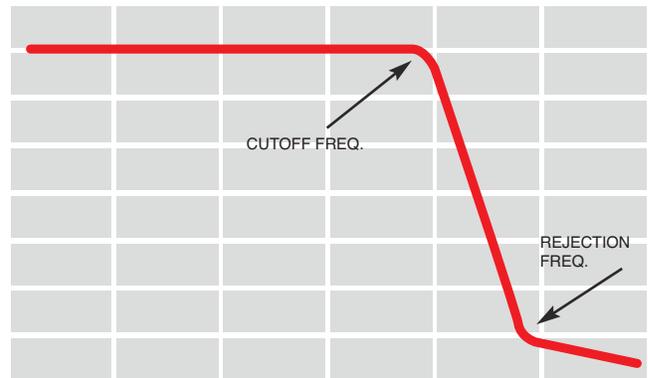
BANDSTOP/NOTCH FILTER

A bandstop or band-rejection filter passes most frequencies without disrupting them but significantly attenuates frequencies over a specific region. A bandstop filter is essentially the opposite of a bandpass filter. A notch filter is a specific type of bandstop filter that has a narrow stopband.



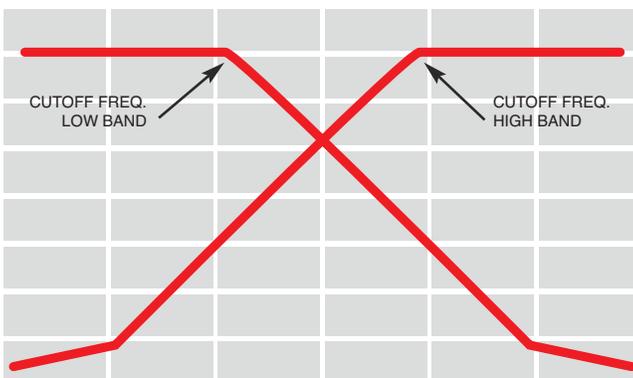
HIGHPASS FILTER

A bandpass filter passes energy within a certain bandwidth and rejects frequencies below and above this bandwidth.



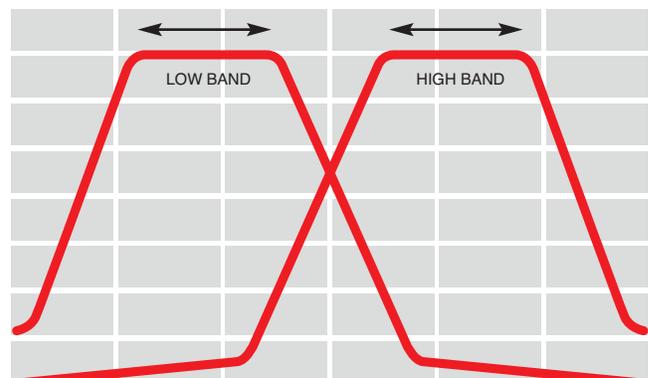
LOWPASS FILTER

A bandpass filter passes energy within a certain bandwidth and rejects frequencies below and above this bandwidth.



DIPLEXER

A diplexer is used to combine signals or channels at widely different frequencies. Consequently, diplexers are used to combine channels in wireless base station transceivers (for example



DUPLEXERS

A duplexer can accommodate frequencies or channels that are much closer to each other. Duplexers are used to combine signals in radar or other systems in which the two frequencies are far apart.

MORE ABOUT AEI

■ DEFENSE

Our broad range of filters and related products are designed to meet the tough requirements of EW, ECM, ESM, radar, communications, and other military systems.

■ SATELLITE

We design filters to cover the uplink and downlink frequencies for satcom systems operating up to 20 GHz.

■ PUBLIC SAFETY

Our RF and microwave filters and related products cover all public safety frequencies from VHF through UHF, as well as the newly assigned LTE bands. Products can be designed for indoor and outdoor installations.

■ AVIONIC AND RADAR

We specialize in products designed for indoor and outdoor installation within radar, air traffic management, and avionics systems.

■ WIRELESS

AEI specializes in filters, duplexers, multiplexers, multi-band combiners/separators for wireless applications, as well as directional couplers, power dividers, and circulators for use indoors and outdoors in base stations, repeaters, mini-cells, micro-cells operating in all wireless bands, such as GSM, LTE, WCDMA, GPS, WiFi, and more. Filters can be designed for indoor or outdoor applications.

■ POINT TO POINT MICROWAVE COMMUNICATION

AEI designs filters, power dividers/combiners duplexers, and couplers for every microwave point-to-point radio band up to 38 GHz.

■ INDUSTRIAL, SCIENTIFIC, AND MEDICAL

From industrial telemetry and automation system to precision scientific and measurement set-ups, and MRI or patient monitoring, AEI's products deliver high-performance and reliability.

Our Website is the ultimate source of information about our products, please visit us frequently.

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RF & MW filters database.**

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973.772.4242

ANATECH ELECTRONICS, INC. 70 Outwater Lane, Garfield, New Jersey 07026

anatechelectronics.com