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NATEL EMS Launches RF Filter Product Line

NATEL has formed a strategic alliance with Telonic Berkeley of Vista, California to meet our customer requirements for microwave filters, RF filters and other passive devices, such as lumped element filters, tubular filters, combine/cavity filters, tunable filters, ceramic filters, couplers, power dividers, combiners, diplexers and multiplexers.



Applications for these filters include:

- Active & passive networks
- Base stations
- Broadcast
- CDMA
- Defense, space level & commercial
- GPS
- GSM
- High power
- IED jammers
- Integrated amplifiers
- ISM
- NGJ
- SATCOM
- Telecommunications
- Test equipment

Supported by NATEL for high-volume demands, Telonic Berkeley can meet all customer requirements for Microwave and RF passive devices built to very demanding specifications with state-of-art design and fabrication facilities.

With thousands of combinations of products and filter types, NATEL and Telonic Berkeley can offer the most complete line of RF filters in the industry.

Products

1. Lowpass Filters
2. Bandpass Filters
3. Bandstop Filters
4. Highpass Filters
5. Tunable Filters / Mechanical & Programmable
6. Filter Banks
7. Wave Guide / Coaxial / Ceramic Filters
8. MultiPlexers
9. Attenuators / Fixed & Programmable
10. Ferrite Devices / Isolators & Circulators
11. Coaxial Switches
12. Frequency Multipliers (x2 to x96)
13. Switch Filters
14. Power Dividers / Combiners
15. CPS LNAs

Filter Types

1. Miniature Lumped Element Filters
2. Interdigital & Microstrip Filters
3. Tubular Filters
4. Switch Filters
5. Filter Banks
6. Combine / Cavity Filters
7. Waveguide Filters
8. Multiplexers
9. Cable Filters
10. Cellular & Wireless Filters
11. Frequency Multipliers
12. Tunable Band Reject Filters
13. Tunable Band Pass Filters
14. Attenuators
15. Coaxial Switches
16. Ferrite Devices
17. Ceramic Filters



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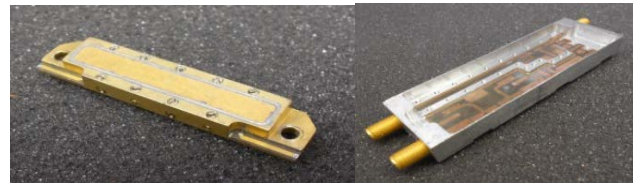
Miniature Lumped Element Filters
Highpass, Lowpass, Bandpass,
Bandstop & Filter Bank

Frequency Range: 10 MHz to 20 GHz
Bandwidth: 1% to Multi-Octave
Surface Mount / Connectorized
Package options available
Applications: broadcast, SATCOM,
telecommunications, defense, IED
jammers, space level & commercial
High power / high performance design



Interdigital & Microstrip Filters
Bandpass

Frequency Range: 1 GHz to 40 GHz
Bandwidth: 1% to 35%
Surface Mount / Connectorized
Package options available
Applications: base stations, defense, space level & commercial



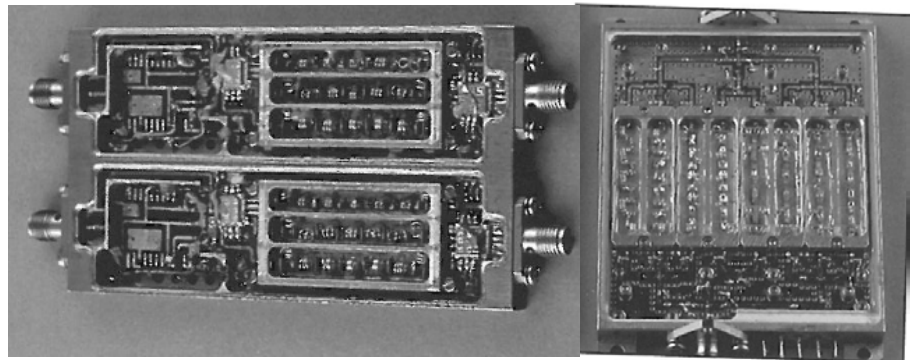
Tubular Filters
Lowpass & Bandpass

Frequency Range: 10 MHz to 3 GHz
Size: 1/2", 3/4", 1 1/4" Diameter
Connectorized Package
Applications: high power, test
equipment, defense,
commercial



Switch Filters
Pin Diode Switch Filters

Frequency Range: 10 MHz
to 18 GHz
No. of Channels: 2 to 16
Insertion Loss: 2 to 6dB
Typ.
Isolation: >50dB
Rejection: >60dB





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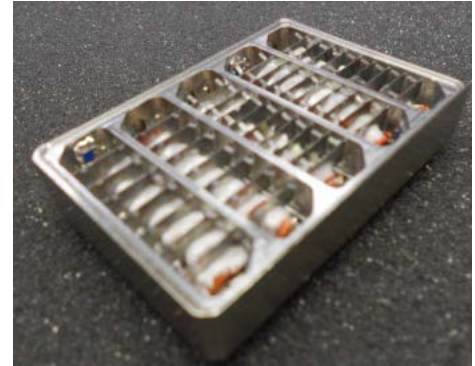
Filter Banks

Lowpass, Bandpass & Highpass

Frequency Range: 10 MHz to 18 GHz

Connectorized Package

Applications: systems where there is no room for other filters



Compline / Cavity Filters

Bandpass

Frequency Range: 500 MHz to 40 GHz

Bandwidth: 1% to 35%

Surface Mount / Connectorized

Package options available

Applications: defense, space level & commercial

High power / high performance cavity design



Waveguide Filters

Highpass, Lowpass, Bandpass, Bandstop, Diplexer, Mux & Hybrid

Frequency Range: 2 GHz to 40 GHz

Bandwidth: 1% to 35%

Surface Mount / Connectorized

Package options available

Applications: base stations, defense, space level & commercial

High power / high performance design



Multiplexers

Diplexer, Mux

Frequency Range: 10 MHz to 20 GHz

No. of Ports: 1 IN and 2 OUT through 11N and 7 OUT

Surface Mount / Connectorized

Package options available

Applications: IED jammers, NGJ

High Power: 200 W





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Cable Filters

Lowpass, Bandpass & Highpass

Frequency Range: 10 MHz to 18 GHz

Size: 0.175 Diameter

Connectorized Package

Applications: systems where there is no room for other filters



Cellular & Wireless Filters

Cellular & Wireless

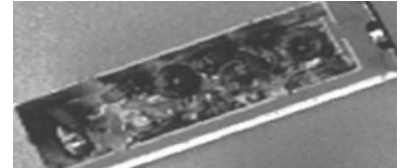
Surface Mount for PC Boards

Surface Mount for Pin Configuration

Drop-in Configuration

Surface Mount with Tabs

Applications: CDMA, GSM, ISM, GPS



Frequency Multipliers

Multiplier

Multiplication Factors: x2 through x96

Applications: active & passive networks, integrated amplifiers



Tunable Band Reject Filters

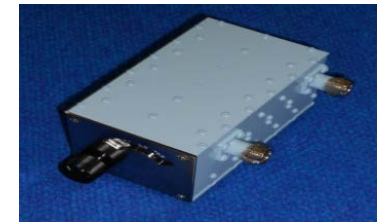
Manually Tunable Band Reject (Stop) Filters

Frequency Range: 8 MHz to 6 GHz (1 Octave Model)

Manually Octave Tuning Ranges

0.1% Notch Bandwidth

High power / high performance cavity design



Tunable Band Pass Filters

Manually & Digitally Tunable Bandpass Filter, Digitally Tunable Filter Bank

Frequency Range: 8 MHz to 6 GHz (1 Octave Model)

Manually or Digitally Controlled / Octave Tuning Ranges

GPIO (IEEE-488) Standard Remote Interface, RS-232 / RS-422 or BCD command

High power / high performance cavity design

Drive voltages: 24 VDC (std) / Input voltages: 110/220 VAC



Attenuators

Rotary Step, Programmable & Custom

Frequency Range: Up to 2 GHz

Attenuator Ranges: 0-11dB, 0-70 dB, 0-110 dB

Sub-miniature, miniature programmable, bench mount, tandem mounted





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Coaxial Switches

SPDT –SP12T & Transfer

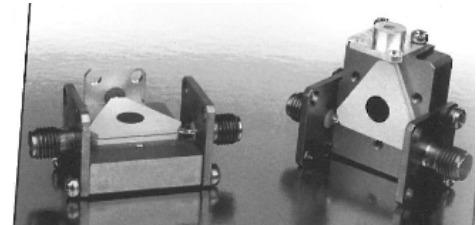
Frequency Range: DC to 26.5 GHz
Failsafe Latching & High Power
Surface Mount / Connectorized
Package options available
Applications: broadcast, SATCOM, telecommunications, defense, IED jammers, space level & commercial



Ferrite Devices

Isolators & Circulators

Frequency Range: 10 GHz to 20 GHz
High Power
Connectorized Package, Surface Mount & Drop-In
Applications: High power, defense, & commercial



Ceramic Filters

Bandpass

Frequency Range: 1 GHz to 3 GHz
Bandwidth: 2% to 10%
Surface Mount
Package options available
Applications: base stations, defense & commercial



About Telonic Berkeley

Telonic Berkeley was founded in 1958 and established a market niche for its Model 107 Smoke Meters and Rotary Step attenuators. Over the years, it has developed a strong reputation and market presence for standard and custom microwave and RF components, including lumped element, combine, cavity and tubular filters (lowpass, bandpass, bandstop and highpass), diplexers, multiplexers and switch filters—always meeting very critical customer requirements. Applications include telephony, radar systems, electronic warfare, communications, satellite and ISR systems.

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About NATEL

NATEL is a major independent manufacturer of a wide variety of microelectronic products, providing low to high volume production for its customers. As the largest and oldest privately held EMS company in the U.S., NATEL is known for high-reliability, high-quality manufacturing that delivers solutions to customers. NATEL is favorably positioned among mid-tier EMS manufacturers to “make amazing things happen.” NATEL holds and maintains industry specific certifications that include ISO 9001:2000, ISO 13485, and AS9100. Its MIL-PRF-38534 (DSCC) Class H and K certifications certify NATEL’s expertise in designing and manufacturing microelectronic assemblies for space and mission-critical defense programs placing it in an elite group of aerospace industry manufacturers. NATEL, headquartered in Chatsworth, CA, has manufacturing locations in California, Nevada, Ohio, Mexico and Colorado. To learn more, visit www.NateLEMS.com or on Twitter, @NateL.

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