2-pole 2133 Family

The 2-pole 2133 family is suitable for application in areas where RF congestion is not extreme. The guaranteed channel separation achieved with the 2133 family is more than sufficient to reduce interference and restore mobile RF system performance in geographic areas where license congestion is moderate.

If, however, you anticipate significant increases in RF licensing for your area, it is advisable to deploy a 4-pole solution. This will insure that potential future licensed frequencies will not reduce the performance of your mobile radio communications system.

2133 Performance Specifications

Frequency Range: 25MHz to 200MHz
Passband @ 3dB: ± 6.75kHz, minimum
Operating Temp. Range: -20°C to +70°C

Stopband @ 20dB for various frequencies:
25.0 to 35.99MHz: ±40kHz, minimum
36.0 to 89.99MHz: ±40kHz, minimum
90.0 to 137.99MHz: ±60kHz, minimum
138.0 to 200.00MHz: ±60kHz, minimum

Insertion Loss for various frequencies:
25.0 to 35.99MHz: 3.0dB, maximum
35.0 to 35.99MHz: 4.0dB, maximum
36.0 to 137.99MHz: 4.0dB, maximum
138.0 to 200.00MHz: 4.5dB, maximum

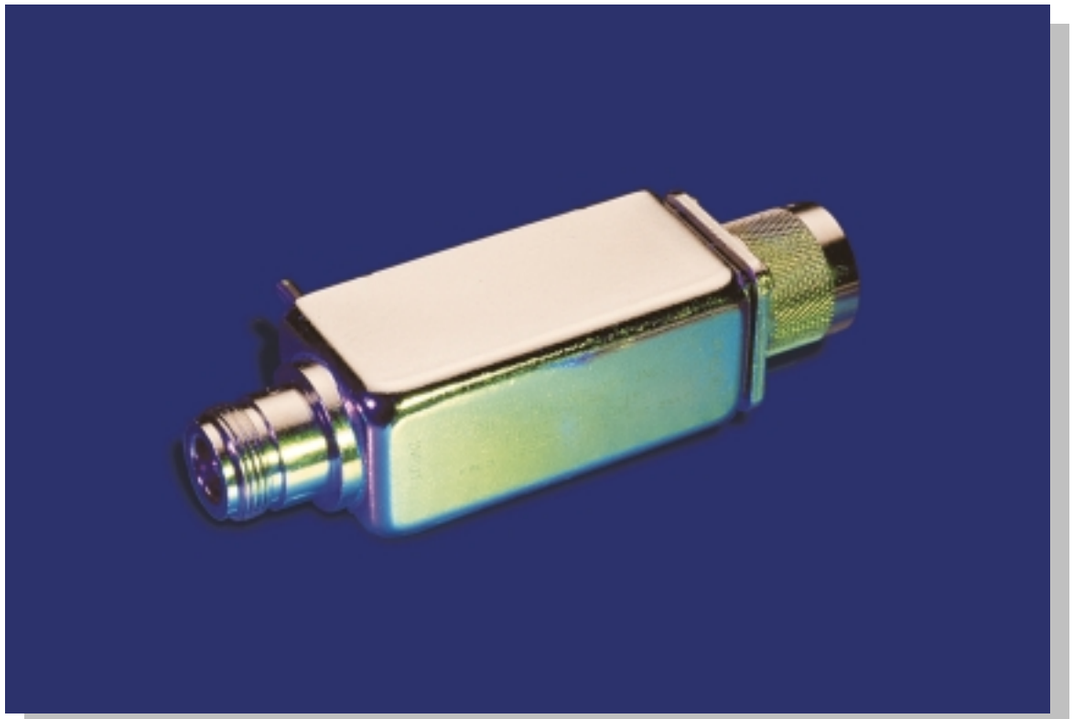
Ultimate Attenuation for various frequencies:
25.0 to 35.99MHz: 30dB, minimum
35.0 to 35.99MHz: 30dB, minimum
36.0 to 137.99MHz: 30dB, minimum
138.0 to 200.00MHz: 30dB, minimum

Unwanted Modes for various frequencies:
25.0 to 35.99MHz: 20dB, minimum
35.0 to 35.99MHz: 20dB, minimum
36.0 to 137.99MHz: 20dB, minimum
138.0 to 200.00MHz: 20dB, minimum

Type Code	RF Input Connector Type	RF Output Connector Type
VBB	BNC-Female	BNC-Female
VBC	UHF-Female	UHF-Female
VBI	OSM-212	OSM-212
VBL	TNC-Female	TNC-Female
VBM	SMA-Female	SMA-Female
VBN	N-Female	N-Female
VBO	BNC-Male	BNC-Female
VBP	RCA-Female	RCA-Female
VBR	N-Female	N-Male
VBU	F-Female	F-Female
VBV	SMC-Female	SMC-Female

Order Code Convention: Ordering a 4-pole filter with SMA female connectors at both the input and output for a licensed frequency of 150.123456MHz. You would specify the filter as; 4133VBM at 150.123456MHz

Addition connector combinations are available. Consult you local distributor for types and availability.



Package Dimensions: 2.390” (L) x 1.020” (W) x 1.070” (H), maximum dimensions (excluding connectors)

4-pole 4133 family

The 4-pole 4133 family is best suited for application in areas where RF congestion can only be described as extreme. The guaranteed channel separation of the 4133 family takes into consideration the latest FCC initiatives for allocation of the RF spectrum to pack more licenses into fixed band.

Additionally, the 4133 is one of the few front-end-filters available that addresses the needs of users licensed to operate in the 220MHz band. The 4133 insures that all current and future sources of interference will not reduce the performance of your mobile radio system.

4133 Performance Specifications

Frequency Range: 25MHz to 220MHz
Passband @ 3dB: ± 6.75kHz, minimum
Operating Temp. Range: -20°C to +70°C

Stopband @ 20dB for various frequencies:
25.0 to 35.99MHz: ±26kHz, minimum
36.0 to 89.99MHz: ±26kHz, minimum
90.0 to 137.99MHz: ±30kHz, minimum
138.0 to 220.00MHz: ±30kHz, minimum

Stopband @ 40dB for various frequencies:
25.0 to 35.99MHz: ±50kHz, minimum
36.0 to 89.99MHz: ±50kHz, minimum
90.0 to 137.99MHz: ±50kHz, minimum
138.0 to 220.00MHz: ±50kHz, minimum

Insertion Loss for various frequencies:
25.0 to 35.99MHz: 5.0dB, maximum
35.0 to 35.99MHz: 6.0dB, maximum
36.0 to 137.99MHz: 6.0dB, maximum
138.0 to 220.00MHz: 7.5dB, maximum

Ultimate Attenuation for various frequencies:
25.0 to 35.99MHz: 60dB, minimum
35.0 to 35.99MHz: 50dB, minimum
36.0 to 137.99MHz: 60dB, minimum
138.0 to 220.00MHz: 60dB, minimum

Front End Filters

for

Specialized Mobile Radios

A Crystal Clear Choice for

Making RF Interference

A Thing of the Past

Brought to you by:

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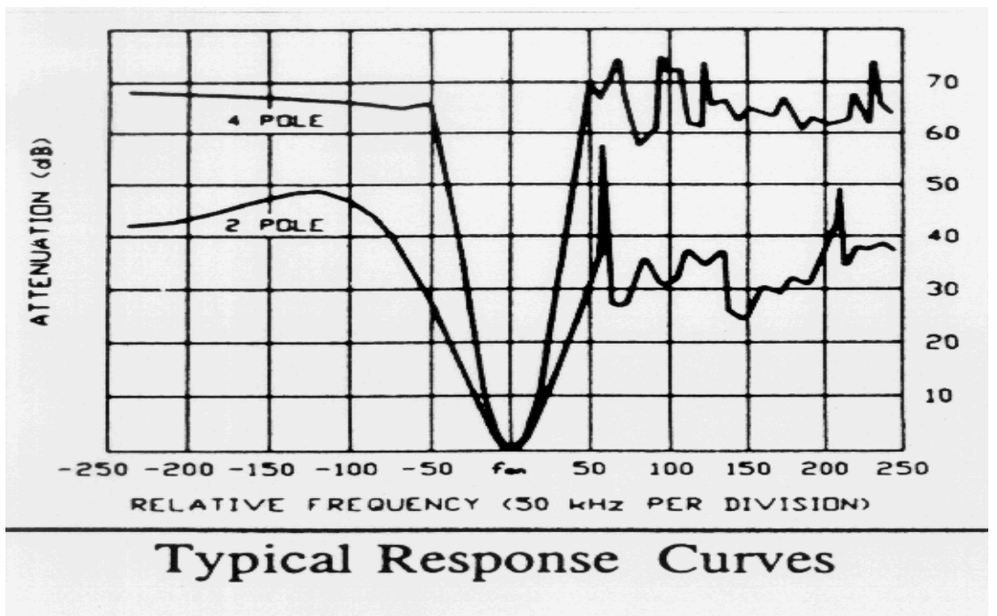
Fax: 407-293-2979
eMail: sales@piezotech.com

PTI
Piezo Technology, Inc.

Historically crystal filters have been utilized as an OEM component deployed within the radio design to reduce noise and provide selectivity in both the transmit and/or receive paths of various RF systems. For over 35-years Piezo Technologies (PTI) has been a leader in the field of crystal filter development for the point to point, point to multi-point and military radio manufacturing communities.

In parallel with its OEM custom development efforts, PTI has developed a standard set of 2-pole and 4-pole crystal filters directed at the unique needs of the Specialized Mobile Radio (SMR) user. For over 20-years PTI has manufactured these devices for the SMR after-market to eliminate the interference that invariably has been a byproduct of the increasingly crowded RF airspace.

Having manufactured and shipped 10's of thousands of front-end filters, PTI is second to none in its understanding of the difficulties users face in assuring that their mobile communications systems are at their peak of performance 100% of the time. Whether your interference is sourced by a distant closely licensed SMR source or that nasty paging system transmitter next door, PTI front-end filters are designed to knock down the offending signal and return your system's performance to peak form.



Typical Response Curves