

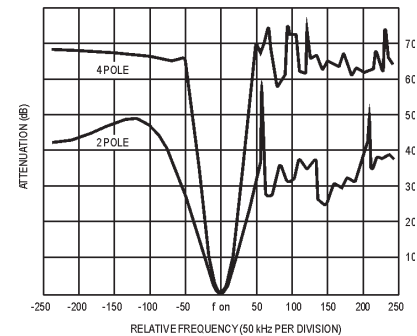
# Front End Crystal Filters

## Electrical Specifications

MtronPTI Model Number	Number of Poles	Center Frequency Range (MHz)	Attenuation 20 dB Min. (kHz)	Boundaries 40 dB Min. (kHz)	Ult. Atten. (dB Min.)	Flat Loss (dB Max)	Unwanted Modes (dB Min.)
2133C	2	25.0 - 35.99	±40	--	30	3	20
2133C	2	36.0 - 89.99	±40	--	30	4	20
2133C	2	90.0 - 137.99	±60	--	30	4	20
2133C	2	138.0 - 220.00	±60	--	30	5	15
2133C	4	25.0 - 35.99	±26	±50	60	5	40
4133C	4	36.0 - 89.99	±26	±50	50	6	40
4133C	4	90.0 - 137.99	±30	±50	60	6	40
4133C	4	138.0 - 220.22	±30	±50	60	7	40

Drive Level: 0 dBm max.  
 Attenuation Boundaries: 3 dB,  $F_{on} \pm 6.75$  kHz min.  
 Operating Temperature:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$   
 Passband Ripple: 1 dB max.  
 Source/Load Termination:  $50 \Omega$   
 \*Reduced operating temperature above 180 MHz

TYPICAL RESPONSE CURVES



Package Styles		
Case	Connector	
	In	Out
VBB	BNC-F	BCN-F
VBC	UHF-F	UHF-F
VBI	OSM-212	OSM-212
VBL	TNC-F	TNC-F
VBM	SMA-F	SMA-F
VBN	N-F	N-F
VBO	BNC-M	BNC-F
VBP	RCA-F	RCA-F
VBR	N-F	N-M
VBU	F-F	F-F
VBV	SMC-F	SMC-F
VBW	UHF-F	SO-239
VBX	N-M	N-M
VBZ	PL-259	SO-239

Note: the dash denotes the configuration of the connector (male or female)

