

MONOLITHIC AND DISCRETE CRYSTAL FILTERS

Monolithic Crystal Filters

1. Center frequencies range: 2...110 MHz
2. Number of poles: 2..14
3. Passband bandwidth: $\leq 0.4\%$
4. Passband ripple: 0,5 -2 dB max.
5. Insertion loss:
for fundamental frequency: 0.5...4 dB,
for third overtone: 2... 6 dB.
6. Shape factor - can be specified by the Customer.
7. Stopband attenuation - can be specified by the Customer (from 30 dB to 90 dB).
8. Spurious response - can be specified by the Customer (from 20 dB to 90 dB).
9. Operating temperature range: -60 °C +85 °C.
10. Intermodulation, VSWR, group delay distortioin and termination - can be specified by the Customer.

Examples of Monolithic Crystal Filters produced by MORION, Inc.

Filter type	Nominal Frequency	Number of poles	Bandwidth				Impedance, kOhm, nF		Package size, mm	Operating temperature range, °C	Comments
			dB	kHz	dB	kHz	Source	Load			
XMF-MV-522	2048	2	3	3,6	30	<25	3,0±5% 7,0±5%	38,0*17,0*4,7 (Accent)	-40...+60		
XMF-MV-522-1	3072	2	3	4,6	30	<30	5,1±5% 5,1±5%	38,0*17,0*4,7 (Accent)	-40...+60		
XMF-MV-625-11...16	327... 3287,5	8	3	3,5	80	8,75	3,0±10% 8,0±10%	39,5x29,5x5,2	-60...+70		
XMF-MV-4-224 M-7,0k	4224	2	3	7	30	<49	4,0±5% 1,3	19,5*14,5*5,0 (Terek)	-40...+60		
XMF-MV-4-224 M-11,0k	4224	2	3	11	30	<100	9,1±5% 110	19,5*14,5*5,0 (Terek)	-40...+60		
XMF-MV-596-02	4998	8	3	4	70	<=9,5	3,6±5% 3,0±5%	56*23*9	0...+45		
XMF-MV-5,3 M	5300	2	1	3	20	<20	1,9±5% 3,0±10%	19,5*14,5*5,0 (Terek)	-20...+70		
XMF-MV-9-2.4	9000	8, 10	3	2,4	60	<=Δf *2,0 <=Δf *1,75	1,8±10% 3,0±10%	23,0*12,0*15,0 (BF15)	+5...+45		
XMF-MV-642	9755...9992	6	3	≥ 16	60	≤ 25	0,05	38,4x18,2x13,0	-50...+70		
XMF-MV-10 M-3k	10000	2	3	3	30	≤ 20	1,0±5% 6,0±5%	11,5x11,0x4,7 (HC4YU)	-40...+75		
XMF-MV-627	10700	8	6	≥ 12	70	≤ 27	2,5±5% 1,6±5%	18,5x12x15,0	-30...+70		
XMF-MV-627-01	10700	8	3	≥ 7,5	80	≤ 25	1,8±5% 4,8±5%		-30...+70		
XMF-MV-627-02	10700	8	3	≥ 15	70	≤ 35	3,0±5% 1,0±5%	18,5x12x15,0	-40...+70		
XMF-MV-630	12500	10	6	≥ 18	90	≤ 46	2,4±5%	23x12x15,0	-60...+85		
XMF-MV-603	20000	10	3	7	70	<=16,6	1,1±5% 4,5±5%	15,8*9,0*10,0 (Musa)	-40...+70		
XMF-MV-603-01	20000	10	6	17	70	<=35	2,2±5% 1,2±5%	15,8*9,0*10,0 (Musa)	-40...+70		
XMF-MV-584	21400	10	6	18	95	<50	2,4±5% 2,1±5%	15,8*9,0*10,0 (Musa)	-40...+70		
XMF-MV-584-01	21400	10	6	7,5	95	<12,5	1,1±5% 5,7±5%	15,8*9,0*10,0 (Musa)	-40...+70		
XMF-MV-586-01	21400	4	6	16	40	<50	1,6±5% 3,5±5%	3,2*7,8*6,0 two cases (UM5)	-10...+55	coupling capacity 7,6pF±2%	
XMF-MV-620-02	22963	10	3	7,5	60	≤ 20,7	0,82±5% 40±0,2%	15,8*9,0*10,0 (Musa)	-60...+85		
XMF-MV-620	22963	10	3	22	60	<=47,5	2,1±10% 0,7±0,2%	15,8*9,0*10,0 (Musa)	-60...+70		
XMF-MV-620-01	22963	10	3	6,5	60	<=18,5	0,8±5% 4,4±0,2%	15,8*9,0*10,0 (Musa)	-60...+70		
XMF-MV-643	23925	14	3	30	70	<=50	3,1±5%	26,0*9,0*9,0 (-Musa)	-60...+80		
XMF-MV-659	23925	2	3	48	20	≤ 140	0,05±5% -	15,8*9,0*10,0 (Musa)	-60...+60		
XMF-MV-603-02	25000	10	3	7	70	≤ 16,6	560±5% 7,2±5%	15,8*9,0*10,0 (Musa)	-60...+60		
XMF-MV-603-03	25000	10	6	17	70	≤ 35	1200±5% 2,4±5%	15,8*9,0*10,0 (Musa)	-60...+60		
XMF-MV-603-07	25500	10	6	20	60	<=40	1,2±5% 2,4±0,2%	15,8*9,0*10,0 (Musa)	-40...+60		
XMF-MV-586	36000	4	6	16	40	<50	0,470±5% 4,2±5%	3,2*7,8*6,0 two cases (UM5)	-10...+50	coupling capacity 14,7pF±2%	
XMF-MV-589-01	37000	2	3	6±1	20	<=Δf *3,0	0,15±5%	3,2*7,8*6,0 one case (UM5)	-35...+35		
XMF-MV-598	44775	4	3	13	40	<=44	4,2±5%	3,2*7,8*6,0 two cases (UM5)	-30...+60	coupling capacity 10,5pF±2%	
XMF-MV-598-01	44775	6	3	13	60	<=44	0,520±5% 3,3±5%	3,2*7,8*6,0 three cases (UM5)	-30...+60	coupling capacity 10,5pF±2%	
XMF-MV-598-02; XMF-MV-598-02 SMD	44775	4	3	16	30	<=50	0,62±10% 3,2±0,2%	3,2*7,8*6,0 two cases (UM5 or UM5SMD)	-45...+85		
XMF-MV-606	62500	6	3	20	40	<=60	1,2±5% 0	15,8*9,0*10,0 (Musa)	-30...+50		
XMF-MV-62,5-18	62500	6	3	28	40	<50	1,2±5% 0,4±10%	3,2x7,8x6,0 in three package	-30...+60	capacity ties 2,0pF±5%	
XMF-MV-597	80455	4	3	12	30	<=50	0,05±5%	38,4*18,2*13,0 (BF32)	-20...+80		

