

Filtronetics, Inc. manufactures low pass, high pass, band pass and band reject type filters, as well as phase match, linear phase and anti-alias type filters. Our frequency range in crystal filters is from 5 KHz to 500 MHz and with LC filters up to 700MHz. The following is a listing of custom filters that we have previously produced and is **simply to show capability**. Consult factory for your custom filter requirements.

## Crystal Band Pass Filters (1 MHz to 500 MHz)

MODEL	Fo MHz	3dB BW	STOP BAND	RIPPLE dB	IL dB
FN-201	1.0	1KHz	50dB BW 6KHz	0.50	4.5
FN-2304	10.0	480Hz	40dB BW 1.9KHz	0.50	4.5
FN-105	10.7	2.3KHz	60dB BW 4.6KHz	0.25	4.0
FN-845-2	10.7	50KHz	60dB BW 150KHz	0.75	6.0
FN-845-3	10.7	100KHz	60dB BW 300KHz	1.00	7.0
FN-1687	21.4	50KHz	60dB BW 100KHz	1.00	4.0
FN-1688	21.4	100KHz	60dB BW 200KHz	1.00	4.0
FN-1681	21.4	200KHz	60dB BW 340KHz	2.00	6.0
FN-1814	21.4	400KHz	60dB BW 740KHz	1.20	6.0
FN-2516	45.0	40KHz	60dB BW 85KHz	0.00	7.5
FN-1870	46.5	200KHz	60dB BW 500KHz	1.00	7.0
FN-1195	60.0	100KHz	40dB BW 390KHz	1.00	6.0
FN-1775	70.0	7KHz	60dB BW 30KHz	1.00	5.0
FN-1404	70.0	25KHz	60dB BW 85KHz	0.00	5.0
FN-1371	70.0	50KHz	60dB BW 250KHz	1.00	5.0
FN-2523	70.0	100KHz	50dB BW 400KHz	1.00	6.5
FN-2091	70.0	200KHz	60dB BW 340KHz	1.00	10.0
FN-1406	70.0	500KHz	55dB BW 2MHz	0.50	10.0
FN-1457	70.0	1.1MHz	50dB BW 2MHz	1.00	10.0
FN-1210	70.25	130KHz	50dB BW 650KHz	1.00	6.0
FN-1094	72.5	65KHz	60dB BW 340KHz	1.00	5.0
FN-1781	80.0	6.5KHz	60dB BW 38KHz	0.00	4.0
FN-1368	109.0	30KHz	60dB BW 150KHz	0.50	4.5
FN-1190	140.0	50KHz	50dB BW 250KHz	0.50	5.0
FN-2196	140.0	225KHz	50dB BW 600KHz	0.50	7.0
FN-2197	140.0	500KHz	50dB BW 1.5MHz	0.50	7.0
FN-2037	140.4	40KHz	60dB BW 150KHz	0.50	5.0
FN-2038	140.4	150KHz	60dB BW 425KHz	0.50	5.0
FN-1801	148.275	40KHz	60dB BW 300KHz	0.75	5.0
FN-2068	150.0	220KHz	60dB BW 950KHz	0.60	4.0
FN-2102	159.03	6KHz	55dB BW 30KHz	0.00	11.0
FN-1825	200.0	25KHz	40dB BW 80KHz	0.00	5.0
FN-2231	467.03	100KHz	30dB BW 800KHz	0.00	7.0

## Low Frequency Crystal Band and Pass Filters (5 KHz to 999 KHz)

MODEL	Fo KHz	3dB BW	STOP BAND	RIPPLE dB	IL dB
FN-1568	41	300.0 Hz	60dB BW 1KHz	0.25	2
FN-154	50	10.0 Hz	60dB BW 50Hz	0.10	4
FN-920M	80	10.0 Hz	60dB BW 60Hz	0.10	4
FN-171	80	200.0 Hz	60dB BW 800Hz	0.25	3
FN-140M	250	25.0 Hz	60dB BW 70Hz	0.00	6
FN-141M	250	250.0 Hz	60dB BW 700Hz	0.20	4
FN-134	455	100.0 Hz	60dB BW 400Hz	0.00	3
FN-497	455	250.0 Hz	60dB BW 550Hz	1.50	4
FN-493	455	400.0 Hz	60dB BW 900Hz	1.00	2
FN-499	455	1.0KHz	60dB BW 2.5KHz	3.00	2
FN-353	455	2.3KHz	60dB BW 4.6KHz	0.20	4
FN-160	455	3.1KHz	60dB BW 6.2KHz	0.20	4
FN-860	455	6.0KHz	60dB BW 19KHz	0.60	6
FN-104	495.75	500.0 Hz	60dB BW 1.5KHz	0.20	3
FN-152	500	100.0 Hz	60dB BW 400Hz	0.20	3
FN-721	500	3.1KHz	60dB BW 6.2KHz	0.20	4

## Crystal Notch Filters (up to 160MHz)

MODEL	NOTCH Fo MHz	3dB BW	NOTCH BW	RIPPLE dB	IL dB
FN-1774	70.0	70 KHz	60dB BW 15KHz	0.5	1
FN-1805	70.5	80 KHz	35dB BW 22KHz	1.0	1
FN-1804	120.0	55 KHz	30dB BW 16KHz	0.3	2
FN-2257	140.0	60 KHz	60dB BW 6.5KHz	1.0	3
FN-2476	150.0	80 KHz	80dB BW 6KHz	1.0	2

## Constant Group Delay Band Pass Crystal Filters (up to 160MHz)

MODEL	Fo MHz	3dB BW	STOP BAND	RIPPLE dB	Group Delay <small>Variation over 3dB</small>
FN-1784	10.7	30 KHz	50dB BW 180KHz	5.0	2μsec
FN-2193	21.4	100 KHz	60dB BW 400KHz	7.5	2μsec
FN-1785	70.0	35 KHz	60dB BW 325KHz	5.0	2μsec
FN-2513	100.0	150 KHz	30dB BW 750KHz	5.5	2μsec

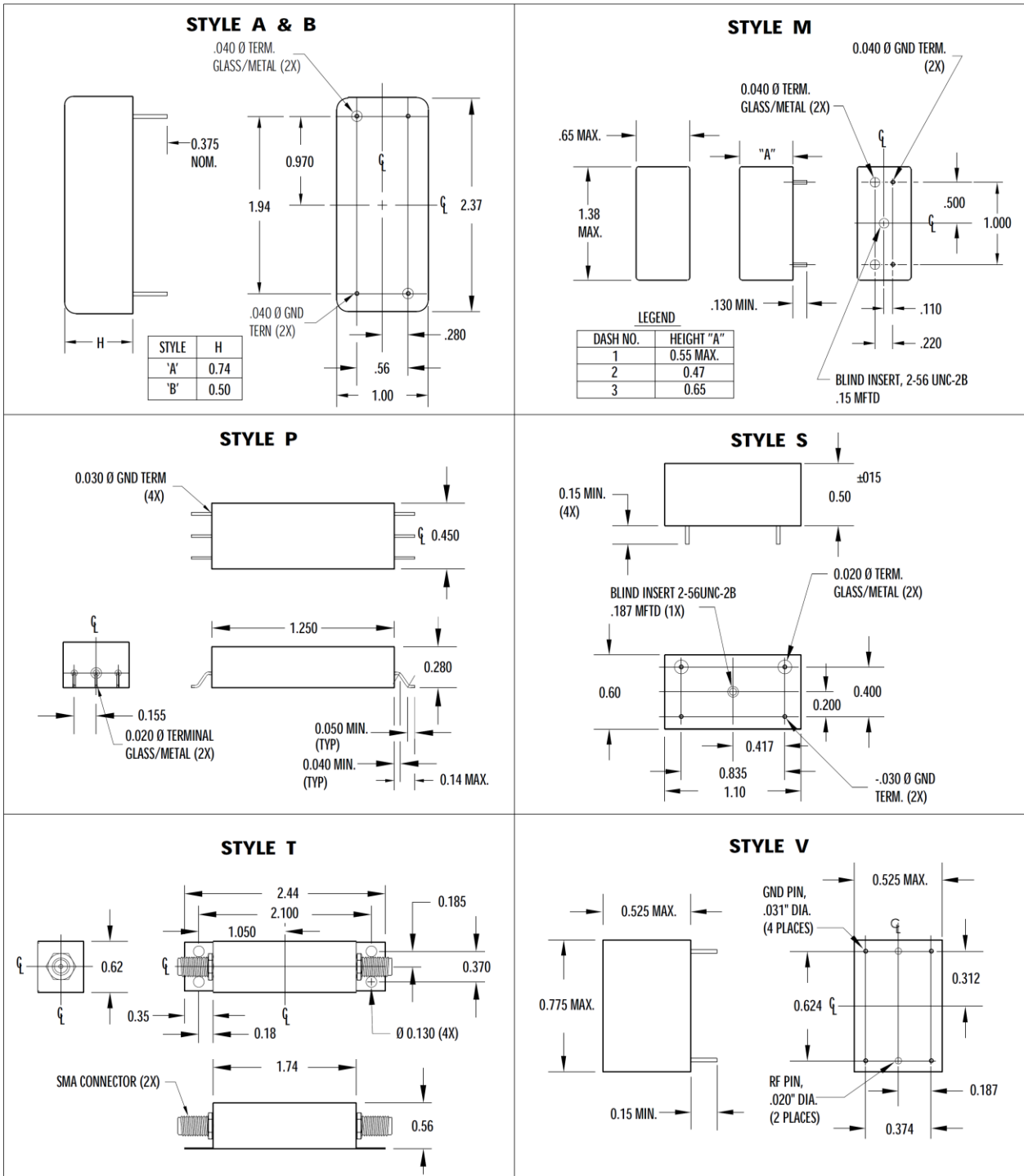
## LC Band Pass Filters (100 to 700 MHz)

MODEL	Fo	3dB BW	STOP BAND	RIPPLE dB	IL dB
FN-352M	100 Hz	10 Hz	60dB BW 60 Hz	0.0	5.0
FN-172	80KHz	2.3KHz	60dB BW 4.9KHz	0.2	6.0
FN-129	100KHz	15KHz	60dB BW 63KHz	0.2	1.0
FN-159	250KHz	3.5KHz	60dB BW 12.5KHz	0.3	6.0
FN-450M	455KHz	8KHz	60dB BW 36KHz	0.5	8.0
FN-539	455KHz	16KHz	60dB BW 32KHz	1.0	6.0
FN-931	1.36MHz	100KHz	60dB BW 900KHz	0.2	3.0
FN-2400	1.75MHz	125KHz	50dB BW 600KHz	0.0	3.0
FN-732-2	1.79MHz	430KHz	60dB BW 540KHz	0.5	7.0
FN-302	4.13MHz	76KHz	60dB BW 130KHz	0.0	10.0
FN-620	5MHz	2MHz	60dB BW 6MHz	0.2	1.0
FN-384	10.7MHz	200KHz	60dB BW 1MHz	0.0	8.0
FN-363	10.7MHz	300KHz	70dB BW 1.5MHz	0.0	9.0
FN-2367	15MHz	600KHz	50dB BW 6MHz	0.0	3.5
FN-2135	21.4MHz	500KHz	60dB BW 2MHz	0.0	9.0
FN-2138	21.4MHz	5MHz	60dB BW 20MHz	0.5	2.0
FN-2418	70.0MHz	2MHz	40dB BW 20MHz	0.0	7.7
FN-2162M	109MHz	3MHz	80dB BW 110MHz	0.0	4.0
FN-2136	160MHz	10MHz	60dB BW 32MHz	0.5	4.5
FN-2555M	256.5MHz	22MHz	50dB BW 95MHz	0.5	4.0
FN-2225 (Tunable)	340-385MHz	8MHz	30dB BW 40MHz	0.5	5.0
FN-2213M	639MHz	10MHz	80dB BW 200KHz	0.0	6.5

## LC Low Pass Filters (1.5KHz to 700MHz)

MODEL	CUT-OFF	REJECTION	RIPPLE dB	IL dB
FN-454	3.0dB @ 1.5KHz	1.9KHz – 38dB	0.3	0.5
FN-177	0.2dB @ 75KHz	146KHz – 60dB	0.2	1.0
FN-2288	3.0dB @ 250KHz	300KHz – 70dB	0.3	0.5
FN-595	1.0dB @ 5.25MHz	6.2MHz – 30dB	0.2	1.0
FN-750	3.0dB @ 20.5MHz	25MHz – 40dB	0.4	1.0
FN-1994 (200 WATTS)	0.2dB @ 400MHz	800MHz – 40dB	0.2	0.2
FN-2198	1.0dB @ 500MHz	670MHz – 38dB	0.2	1.0

## Typical Outline Drawings For Custom Crystal and LC Filters



NOTE: WE ARE ABLE TO CUSTOMIZE ALMOST ANY REQUIRED PACKAGE, CONSULT FACTORY