Typical Applications:

- FM Receivers
- Digital Transmission Systems
- Communication Applications

Crystal Filter
(Through Hole Crystal Filter)

■ Specification

Crystal Filter

Model	Nominal Freq. (MHz)	Pole	Pass Bandwidth (dB)	Pass Bandwidth (KHz)	Attenuation Bandwidth (dB)	Attenuation Bandwidth (KHz)	Ripple (dB) (p-p)	Insertion Loss (dB)	Guaranteed Attenuation (dB)	Terminating Impedance (KOhm/pF)	Operating temp. range (℃)	Height (mm)
45FA	45	4	3	±7.5	25	±22	1	4	80	650/3 Cc=9pF	-20 to +70	H6.0
45FB	45	4	3	±10	25	±25	1	3	80	800/2 Cc=6.5pF	-20 to +70	H6.0
45FC	45	2	3	±15	15	±50	1	2	40	1200/4.5	-20 to +70	H6.0
45FD	45	4	3	±15	35	±50	1	4	80	800/1.8Cc=6.5pF	-20 to +70	H6.0
45FE	45	2	3	±17	15	±60	1	2.5	65	870/-0.2	-20 to +70	H6.0

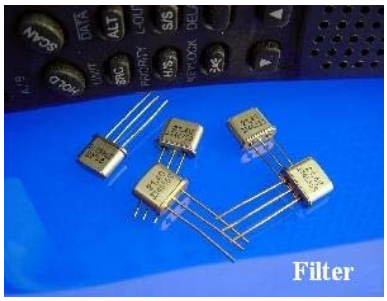
Model	Nominal Freq. (MHz)	Pole	Pass Bandwidth (dB)	Pass Bandwidth (KHz)	Attenuation Bandwidth (dB)	Attenuation Bandwidth (KHz)	(dB)	(KHz)	Ripple (dB) (p-p)	Insertion Loss (dB)	Guaranteed Attenuation (dB)	Terminating Impedance (Kohm//pF)	Operating temp. range (℃)	Height (mm)
10.7A	10.7	4	3	±3.75	18	±15	-	-	0.7	2	-	1.5//5	-20 to +70	H11.0
10.7B	10.7	4	3	±3.75	40	±12.5	-	-	1	2.5	-	1.5//4.5Cc=17pF	-20 to +70	H11.0
10.7C	10.7	2	3	±7.5	18	±25	-	-	0.5	2	-	3//2.5	-20 to +70	H11.0
10.7D	10.7	4	3	±7.5	40	±25	-	-	1	2.5	-	3//1.5Cc=5pF	-20 to +70	H11.0
10.7E	10.7	6	3	±7.5	60	±22.5	-	-	2	3	-	3//0	-20 to +70	H11.0
10.7F	10.7	8	3	±7.5	60	±15	80	±20	2	4	-	3//0	-20 to +70	H11.0
10.7G	10.7	2	3	±15	18	±50	-	-	0.5	2	-	5//-1	-20 to +70	H11.0
10.7H	10.7	4	3	±15	40	±50	-	-	1	2.5	-	5//-1,8 Cc=1pF	-20 to +70	H11.0
21.4A	21.4	8	3	±3.75	65	±9	90	±12.5	2	4	-	0.91//3	-20 to +70	H6.0
21.4B	21.4	8	3	±3.75	65	±9	90	±12.5	2	4	-	1.6//1	-20 to +70	H6.0
21.4C	21.4	8	3	±6	65	±14.5	90	±20	2	3	-	1.6//1	-20 to +70	H6.0
21.4D	21.4	8	3	±7.5	65	±17	90	±25	2	3	-	1.6//1	-20 to +70	H6.0
21.4E	21.4	8	3	±15	60	±35	90	±50	2	3	-	2.4//-2	-20 to +70	H6.0

*** Note: Requires two matched filters of this package type.**

Model	Nominal Freq. (MHz)	Pole	Pass Bandwidth (dB)	Pass Bandwidth (KHz)	Attenuation Bandwidth (dB)	Attenuation Bandwidth (KHz)	Ripple (dB) (p-p)	Insertion Loss (dB)	Guaranteed Attenuation (dB)	Terminating Impedance (KOhm/pF)	Operating temp. range (℃)	Height (mm)
45TA	45	2	3	±3.75	18	±18	0.5	2	40	3//-0.5	-20 to +70	H8.0
45TB	45	4	3	±3.75	40	±15	1	4	80	3//-0.5Cc=0pF	-20 to +70	H8.0
45TC	45	2	3	±7.5	15	±22	0.5	1.5	40	2.5//-1.2	-20 to +70	H8.0
45TD	45	4	3	±7.5	25	±22	1	3	80	3//-1Cc=-1.2pF	-20 to +70	H8.0
45TE	45	2	3	±10	15	±28	0.5	1.5	40	3//-1	-20 to +70	H8.0
45TF	45	4	3	±10	25	±25	1	3	75	3//-1.3Cc=-1.5pF	-20 to +70	H8.0
45TG	45	2	3	±15	15	±50	1	2	30	8.5//0	-20 to +70	H8.0
45TH	45	4	6	±15	30	±50	1	3	67	6//-1.2Cc=-2pF	-20 to +70	H8.0

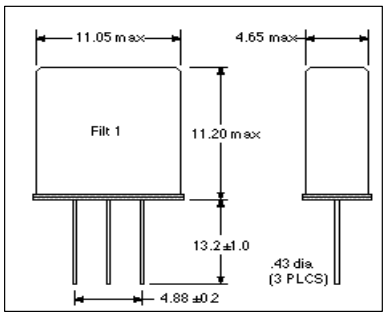
*** Note: Requires two matched filters of this package type.**

Model	Nominal Freq. (MHz)	Pole	Pass Bandwidth (dB)	Pass Bandwidth (KHz)	Attenuation Bandwidth (dB)	Attenuation Bandwidth (KHz)	Ripple (dB) (p-p)	Insertion Loss (dB)	Guaranteed Attenuation (dB)	Terminating Impedance (KOhm/pF)	Operating temp. range (℃)	Height (mm)
70A	70	2	3	±7.5	18	±30	1	2	40	2.5//-0.5	-20 to +70	H8.0
70B	70	4	3	±7.5	30	±25	1	3	80	2.5//-1 Cc=-0.5pF	-20 to +70	H8.0
70C	70	2	3	±10	13	±25	0.5	1.5	35	2.5//-1	-20 to +70	H8.0
70D	70	4	3	±10	25	±25	1	3	70	2.5//-1 Cc=-1pF	-20 to +70	H8.0
70E	70	2	3	±15	13	±50	1	2	3	4.0//-1	-20 to +70	H8.0
70F	70	4	3	±15	25	±50	1	3	70	4.1//-1Cc=-1.4pF	-20 to +70	H8.0
90A	90	4	3	±4.0	13	±12.5	1	5	70	1.5//-0.5Cc=-0.5pF	-20 to +70	H8.0
90B	90	2	3	±10	13	±25	0.5	1.5	35	2.3//-0.2	-20 to +70	H8.0
90C	90	4	3	±10	25	±25	1	3	80	2.0//-0.8Cc=-1pF	-20 to +70	H8.0
90D	90	4	3	±13	18	±25	1	3	80	2.3//-0.7Cc=-0.5pF	-20 to +70	H8.0



■ Dimension (Unit:mm)

Filter-H11.0



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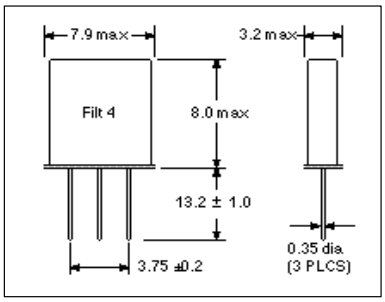

Filter-H6.0