

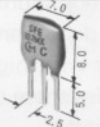
1. FM Tuner with Ceramic Filter

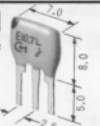
During the nearly 20 years that FM radio broadcasting has been in service, there has been rapid progress in the improvement of sound quality and the development of multiplex stereo system. We have seen a literal explosion in the variety of FM tuners on the market today. This creates a consumer demand for more and better programming which in turn leads to more broadcasting stations.

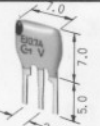
As has been mentioned, this is a prerequisite to improved selectivity in the receiver. MURATA CERAMIC FILTERS

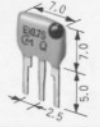
are successfully being used in commercial radios and high performance stereo equipment to this end. Furthermore, with respect to the detector stage, MURATA has developed excellent CERAMIC DISCRIMINATORS to be matched with various kinds of detecting technologies, and is now trying to eliminate the problem of fine tuning the circuitry. Specifications for typical models of both the CERAMIC FILTER and CERAMIC DISCRIMINATOR are shown in Table 1.

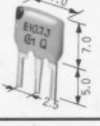
10.7 MHz CERAMIC FILTER FOR FM IF-STAGE

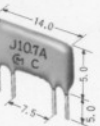
SFE10.7MX  Unit : mm	Type.	Char.	Center Frequency	G D T	3dB Band Width	20dB Band Width	Insertion Loss	Spurious (9~12MHz)	In, Output Impedance
	SFE10.7MX	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue) C:10.73MHz±30kHz (Orange)	0.2μs Band Width fo±110kHz Min	250±40	670kHz Max. (620kHz Typ.)	12dB Max. (10dB Typ.)	25dB Min. (33dB Typ.)	330Ω	
	SFE10.7MX2	D:10.64MHz±30kHz (Black) E:10.76MHz±30kHz (White)	0.15μs Band Width fo±80kHz Min	220±40	610kHz Max. (560kHz Typ.)	12.5dB Max. (10.5dB Typ.)	30dB Min. (37dB Typ.)	330Ω	

SFE10.7ML/MM Stereo Radio use  Unit: mm	Type	Char.	Center Frequency	GDT (kHz)Min	3dB Band Width	20dB Band Width	Insertion Loss	Spurious (9~12MHz)	In, Output Impedance
	SFE10.7ML	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue) C:10.73MHz±30kHz (Orange)	0.25μs Band Width fo±70(±105)	280±50kHz	650 kHz Max. (610kHz Typ.)	9dB Max. (7dB Typ.)	25dB Min. (33dB Typ.)	330Ω	
	SFE10.7MM	D:10.64MHz±30kHz (Black) E:10.76MHz±30kHz (White)	0.25μs Band Width fo±60(±85)	230±50kHz	600kHz Max. (510kHz Typ.)	11dB Max. (9dB Typ.)	30dB Min. (38dB Typ.)	330Ω	

SFE10.7MA  Unit: mm	Type	Char.	Center Frequency	GDT (kHz)Min	3dB Band Width	20dB Band Width	Insertion Loss	Spurious (8~12MHz)	In, Output Impedance
	SFE10.7MA5	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue) C:10.73MHz±30kHz (Orange)	—	280±50kHz	650kHz Max. (520)	6dB Max. (4dB)	30dB Min. (43dB)	330Ω	
	SFE10.7MA8	D:10.64MHz±30kHz (Black) E:10.76MHz±30kHz (White)	0.5μs Band Width fo±80(±100)	280±50kHz	650kHz Max. (520kHz Typ.)	6dB Max. (4dB Typ.)	30dB Min. (43dB Typ.)	330Ω	

SFE10.7MS  Unit: mm	Type	Char.	Center Frequency	3dB Band Width	20dB Band Width	Insertion Loss	Spurious (8~12MHz)	In, Output Impedance
	SFE10.7MS2	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue) C:10.73MHz±30kHz (Orange)	230±50kHz	600kHz Max. (420kHz Typ.)	6dB Max. (4dB Typ.)	40dB Min. (45dB Typ.)	330Ω	
	SFE10.7MS3	D:10.64MHz±30kHz (Black) E:10.76MHz±30kHz (White)	180±40kHz	520kHz Max. (380kHz Typ.)	7dB Max. (4.5dB Typ.)	40dB Min. (45dB Typ.)	330Ω	

SFE10.7MJ  Unit: mm	Type	Char.	Center Frequency	3dB Band Width	20dB Band Width	Insertion Loss	Spurious (8~12MHz)	In, Output Impedance
	SFE10.7MJ	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue) C:10.73MHz±30kHz (Orange)	150±40kHz	400kHz Max. (300kHz Typ.)	10dB Max. (5dB Typ.)	40dB Min. (45dB Typ.)	330Ω	
		D:10.64MHz±30kHz (Black) E:10.76MHz±30kHz (White)						

SFJ10.7MA  Unit: mm	Type.	Char.	Center Frequency	3dB Band Width	50dB Band Width kHz max.	Insertion Loss (dB)Max.	Spurious (8~12MHz) (dB) Min.	In, Output Impedance
	SFJ 10.7MA	A:10.70MHz±30kHz (Red) B:10.67MHz±30kHz (Blue)	280±50kHz	750 (620)	7±2	55 (80)	330Ω	
	SFJ 10.7MA 2	C:10.73MHz±30kHz (Orange) D:10.64MHz±30kHz (Black)	230±50kHz	700 (580)	7±2	60 (90)	330Ω	
	SFJ 10.7MB5	E:10.76MHz±30kHz (White)	180±40kHz	590 (490)	9.5±2	60 (90)	330Ω	

• () : Typ. Value

Table 1