SPECIFICATION OF SAW FILTER

YOKETAN CORP.

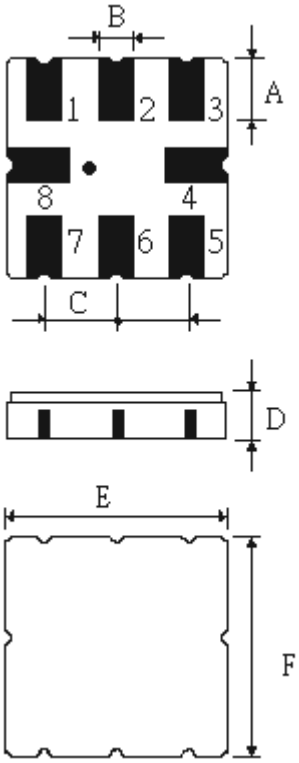
Spec no: SM3838F-12200-025-NJ-A

1. Features

It's a low-loss RF filter for digital television.

2. Type : SM3838 (Lead Free Parts)

3. Product Dimension



Pin	Connection
1,2	Input
5,6	Output
3,7	To be Ground
4,8	Case Ground

Sign	Data (unit:mm)	Sign	Data(unit:mm)
A	1.00±0.1	D	1.5±0.15
B	0.6±0.1	E	3.80±0.15
C	1.27±0.1	F	3.80±0.15

4. Performance

4-1.Maximum Ratings

Rating	Value	Unit
Input Power Level	0	dBm
DC Voltage	0	V
Operable temperature range	-40 to +85	℃
Storage temperature range	-40 to +85	℃

4-2.Electronic characteristics

Operating temperature range: T = -40℃ ~ +85℃

Terminating source impedance: Z_S= 200Ω

Terminating load impedance: Z_L = 200Ω

Item		Min.	Typ.	Max.	Units
Center Frequency	f_C		1220.0		MHz
Maximum insertion Loss (±4MHz)	IL_{max}	3.5	4.7	5.8	dB
Ripple in passband (±4MHz)	△α		0.8	1.5	dB
Attenuation	α				dB
500.00 …. f_c–91.00 MHz		50.0	60.0		
f_c–91.00 …. f_c–85.00 MHz		50.0	60.0		
f_c–76.00 …. f_c–68.00 MHz		46.0	55.0		
f_c–88.00 MHz		50.0	60.0		
f_c–72.00 MHz		48.0	58.0		
f_c–44.00 MHz		50.0	60.0		
f_c–36.00 MHz		46.0	52.0		
f_c+70.00 …. 2000.00 MHz		50.0	55.0		
Group delay ripple	△τ				
Aperture 500 kHz 1216.00 …… 1224.00 MHz			15		ns

4-3.Electronic characteristics

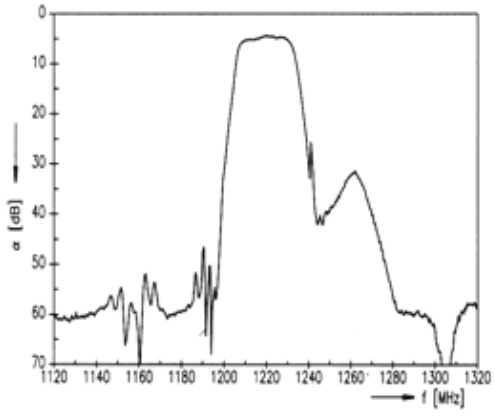
Operating temperature range: T = 20℃ ~70℃

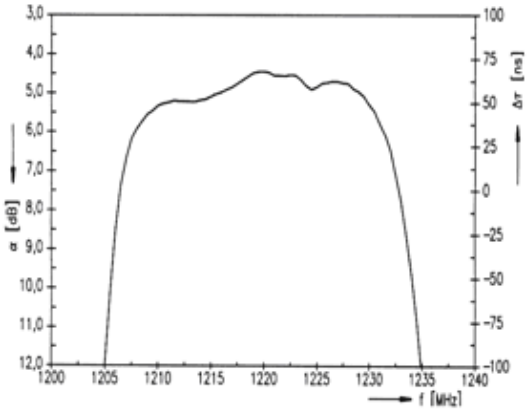
Terminating source impedance: Z_S= 200Ω

Terminating load impedance: Z_L = 200Ω

Item	Min.	Typ.	Max.	Units
Center Frequency f_C		1220.0		MHz
Minimum Insertion Loss IL_{min}				
1210.00 …. 1229.00 MHz	3.5	4.5	5.8	dB
Ripple in passband △α				
1210.00 …. 1229.00 MHz		1.0	3.0	dB
Relative attenuation (relative to IL_{min}) α_{rel}				
500.00 …. f_C–91.00 MHz	46.0	56.0		dB
f_C–91.00 …. f_C–85.00 MHz	46.0	56.0		
f_C–76.00 …. f_C–68.00 MHz	42.0	51.0		
f_C–88.00 MHz	46.0	56.0		
f_C–72.00 MHz	44.0	54.0		
f_C–44.00 MHz	46.0	56.0		
f_C–36.00 MHz	42.0	48.0		
f_C +70.00 …. 2000.00 MHz	46.0	51.0		
Group delay ripple △τ				
Aperture 500 kHz 1210.00 …… 1229.00 MHz		40		ns

5. Typical Frequency Response





6. Notice

Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_C. Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.