

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

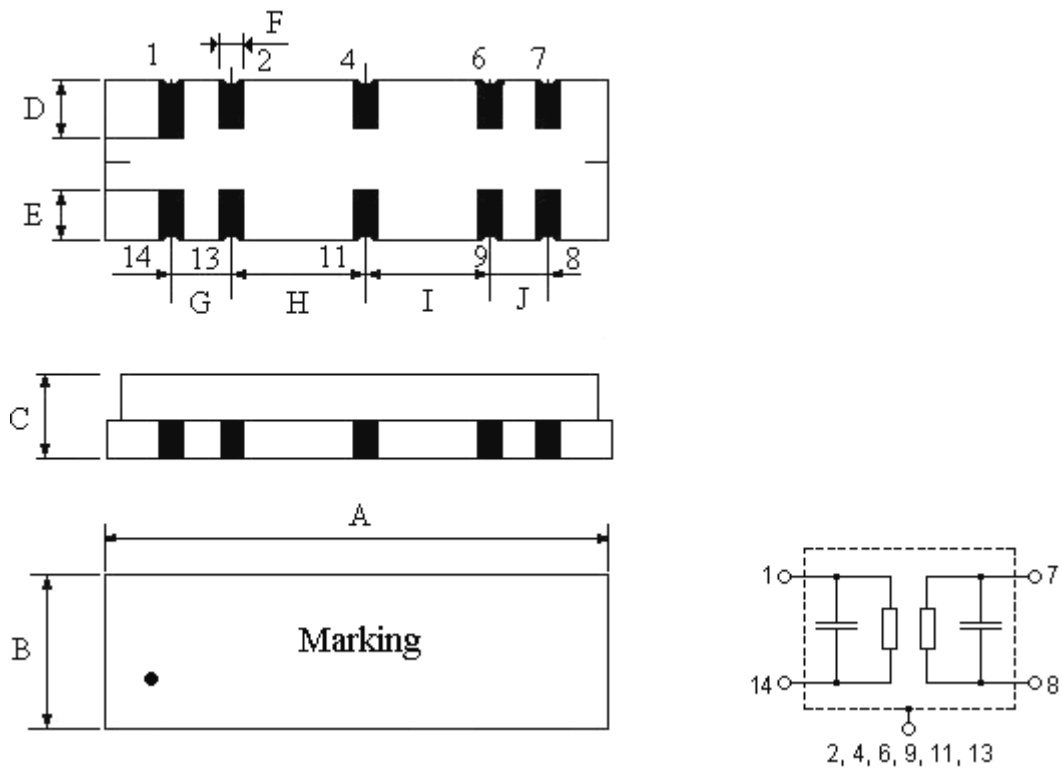
Spec no: SM1140F-00361-007-NJ-A

1. Features

IF filter for Digital Cable TV
Surface Mounted Technology (SMT)

2. Type : SM1140 (X2649P)

3. Product Dimension



Pin	Connection
1	Input
14	Input-ground
4,9,11,13	Case-ground
7,8	Output
2,6	Ground

Sign	Data (unit:mm)	Sign	Data(unit:mm)
A	11.0±0.2	F	0.7
B	4.0±0.2	G	1.27
C	1.6±0.2	H	2.54
D	1.5	I	2.54
E	1.1	J	1.27

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4. Performance

4-1. Electronic Characteristics

Reference temperature: $T_A = 25\text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\ \text{k}\Omega \parallel 3\ \text{pF}$

Item	Min.	Typ.	Max.	Unit
Center frequency (Center between 10 dB points)		36.125		MHz
Insertion attenuation Reference level for the following data				
36.13MHz	19.5	20.5	22.5	dB
Pass bandwidth				
$\alpha_{\text{rel}} \leq 1\ \text{dB}$		7.4		
$\alpha_{\text{rel}} \leq 3\ \text{dB}$	—	7.8	—	MHz
$\alpha_{\text{rel}} \leq 30\ \text{dB}$	—	9.8	—	MHz
Relative attenuation				
32.32MHz	—	1.5	—	dB
39.94MHz	0.5	2.0	2.5	dB
32.13MHz	2.5	3.5	4.5	dB
40.13MHz	2.1	3.7	4.3	dB
31.25MHz	28.0	36.0	—	dB
47.25MHz	37.0	45.0	—	dB
Lower sidelobe				
25.00 ... 30.15MHz	30.0	36.0	—	dB
30.15 ... 31.25MHz	28.0	36.0	—	dB
Upper sidelobe				
41.30 ... 42.00MHz	30.0	37.0	—	dB
42.00 ... 50.00MHz	33.0	39.0	—	dB
Reflected wave signal suppression 1.1 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 36.13MHz)	40.0	52.0	—	dB
Feedthrough signal suppression 1.2 μs ... 1.1 μs before main pulse (test pulse 250 ns, carrier frequency 36.13MHz)	—	48.0	—	dB
Group delay ripple (p-p)				
32.13 ... 40.13MHz	—	40	—	ns
Impedance at 36.13MHz				
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$	—	3.5 \parallel 12.5	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$	—	4.0 \parallel 3.3	—	k Ω \parallel pF
Temperature coefficient of frequency	—	-72	—	ppm/K

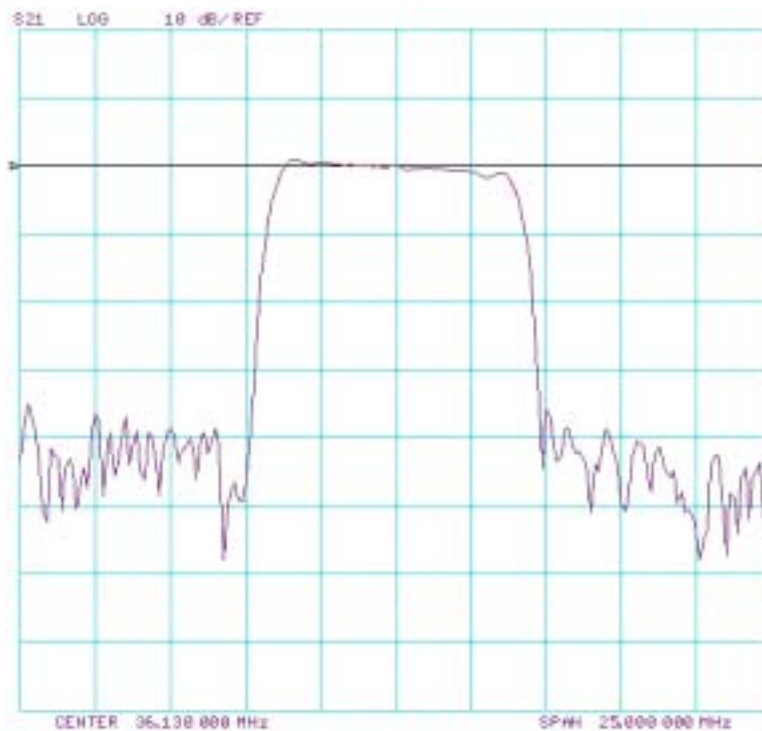
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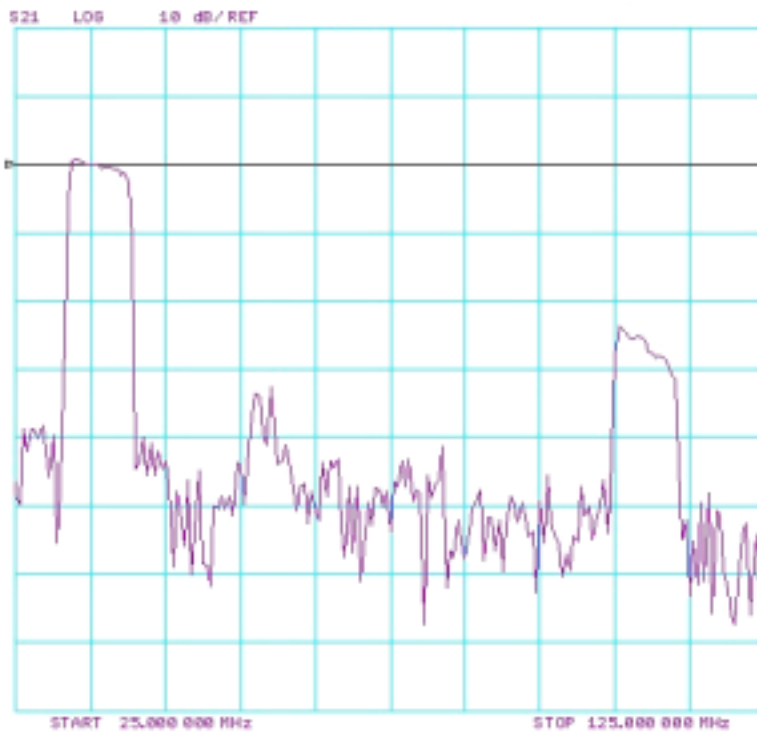
4-2. Maximum Ratings

Rating	Value	Unit
Operable Temperature Range T_A	-25 to +65	
Storage Temperature Range T_{stg}	-40 to +85	
DC Voltage (between any terminals) V_{DC}	0	V
AC Voltage (between any terminals) V_{PP}	10	V

5. Frequency response



5. Frequency response



6. Time Domain Response

