



SAW Components

Data Sheet M 3951 M





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M 3951 M

IF Filter for Video Applications

45,75 MHz

Data Sheet

Standard

Plastic package **SIP5K**

■ M/N

Features

- TV IF filter with Nyquist slope and sound suppression
- Customized group delay predistortion
- Suitable for FCC EIA / IS-31

Terminals

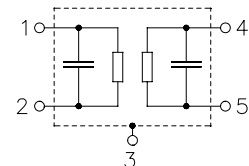
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

Pin configuration

- | | |
|---|-----------------------|
| 1 | Input |
| 2 | Input - ground |
| 3 | Chip carrier - ground |
| 4 | Output |
| 5 | Output |



Type	Ordering code	Marking and package according to	Packing according to
M 3951 M	B39458-M3951-M100	C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	12	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics

Reference temperature:	$T_A = 25 (45) ^\circ \text{C}$
Terminating source impedance:	$Z_S = 50 \Omega$
Terminating load impedance:	$Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	44,06 (44,00) MHz	10,5	12,0	13,5	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	4,9	5,9	6,9	dB
Color carrier	42,23 (42,17) MHz	1,2	2,2	3,2	dB
Sound carrier	41,31 (41,25) MHz	25,0	32,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	48,0	61,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	46,0	56,0	—	dB
Lower sidelobe	35,06 ... 39,81 (35,00 ... 39,75) MHz	38,0	42,0	—	dB
Upper sidelobe	47,31 ... 55,06 (47,25 ... 55,00) MHz	36,0	41,0	—	dB
Reflected wave signal suppression					
1,1 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,2 μs ... 1,1 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay predistortion	$\Delta\tau$				
(reference frequency: 45,81 MHz)					
42,81 (42,75) MHz	—	—	—10	—	ns
42,23 (42,17) MHz	—	—	—40	—	ns
Group delay ripple (p-p)	$\Delta\tau$	—	40	—	ns
Impedance at 44,06 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$	—	—	1,4 \parallel 10,8	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$	—	—	0,9 \parallel 4,4	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	—72	—	ppm/K



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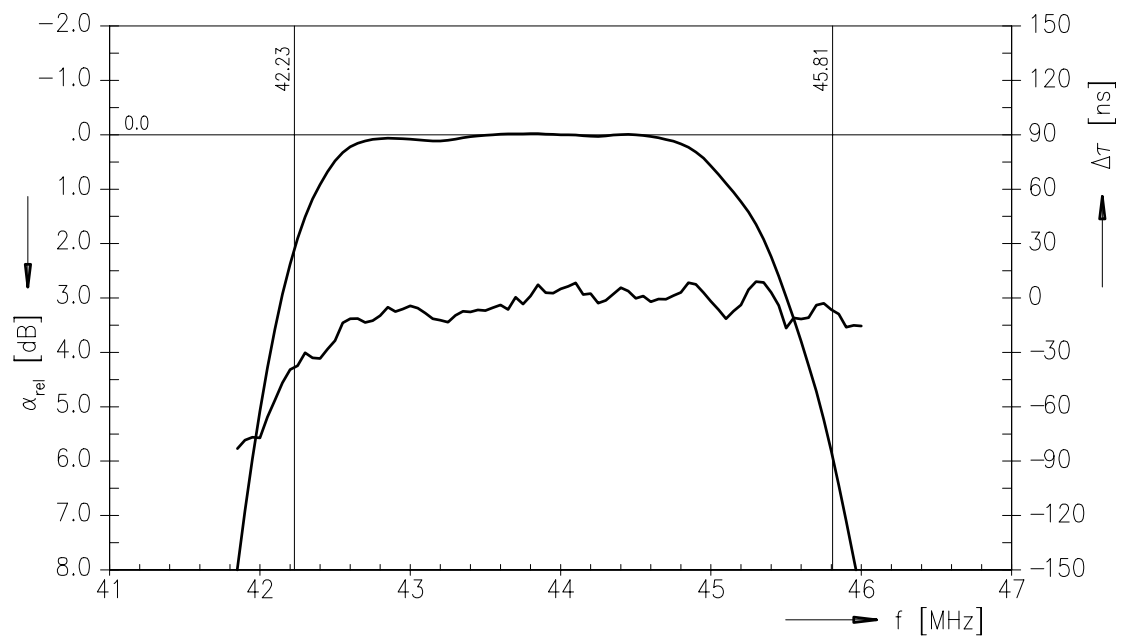
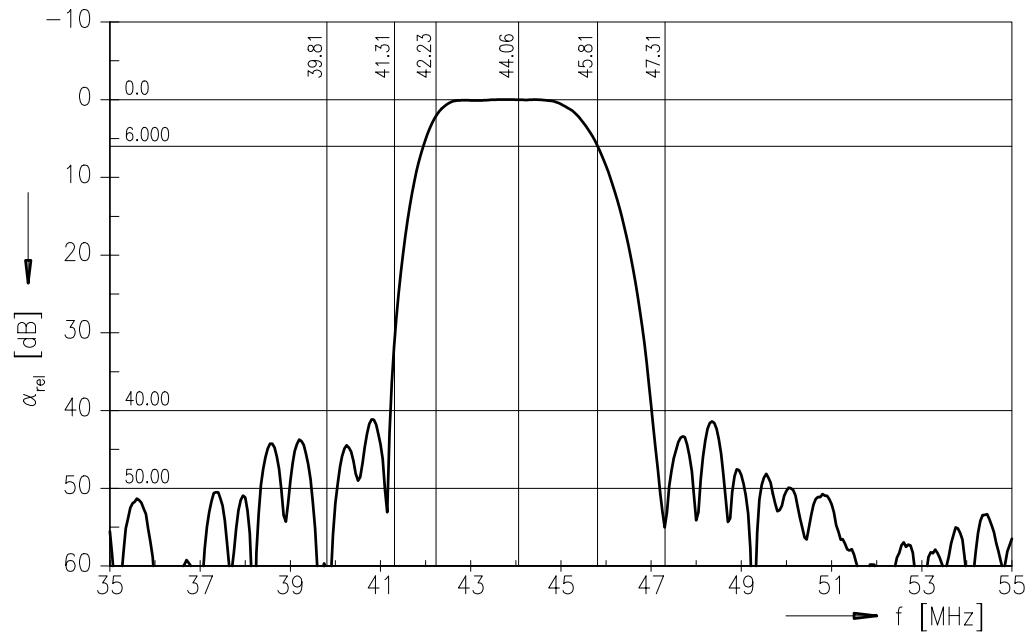
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Frequency response





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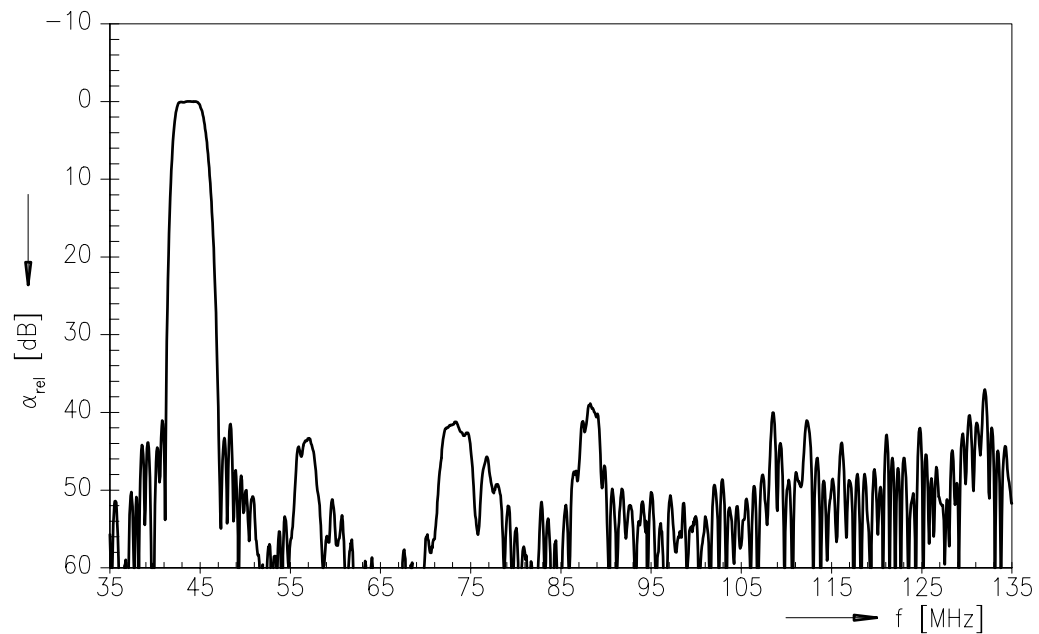
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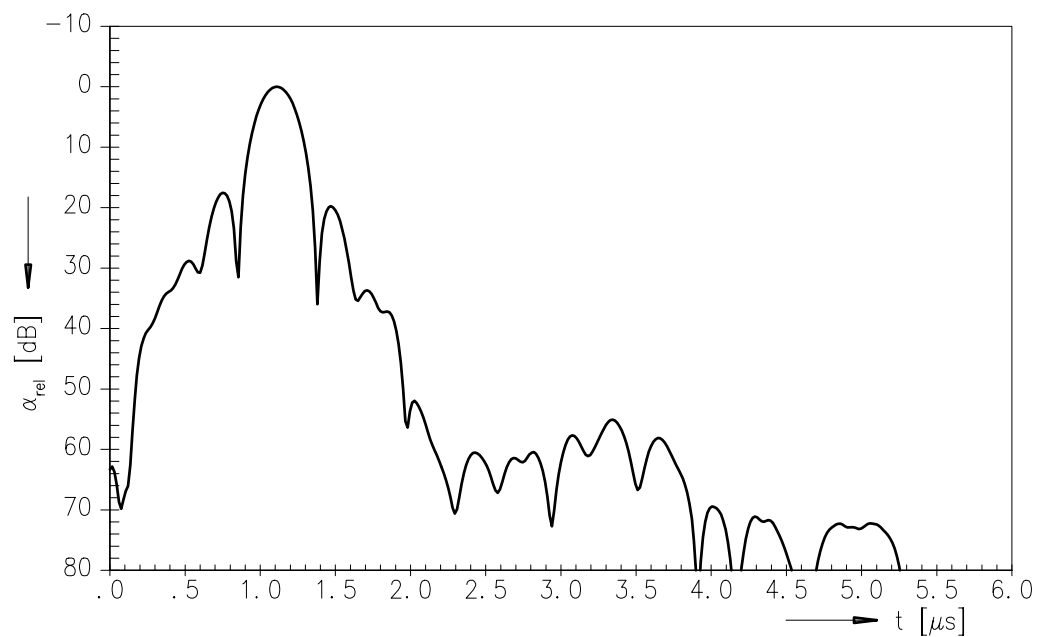
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Frequency response



Time domain response





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE MM PD

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