



# SAW Components

Data Sheet M 3951 M





**SAW Components**

**M 3951 M**

**IF Filter for Video Applications**

**45,75 MHz**

**Data Sheet**

**Standard**

Plastic package **SIP5K**

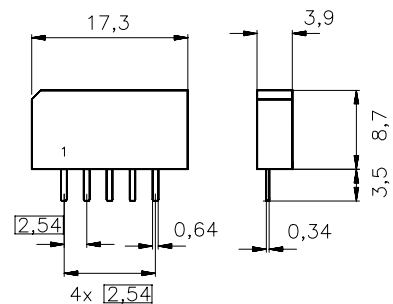
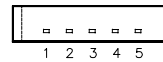
- M/N

**Features**

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

**Terminals**

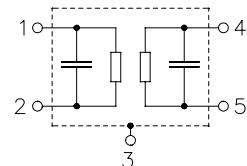
- Tinned CuFe alloy



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	$V_{DC}$	5	V	between any terminals
AC voltage	$V_{pp}$	10	V	between any terminals



**SAW Components**

**M 3951 M**

**IF Filter for Video Applications**

**45,75 MHz**

**Data Sheet**

**Characteristics**

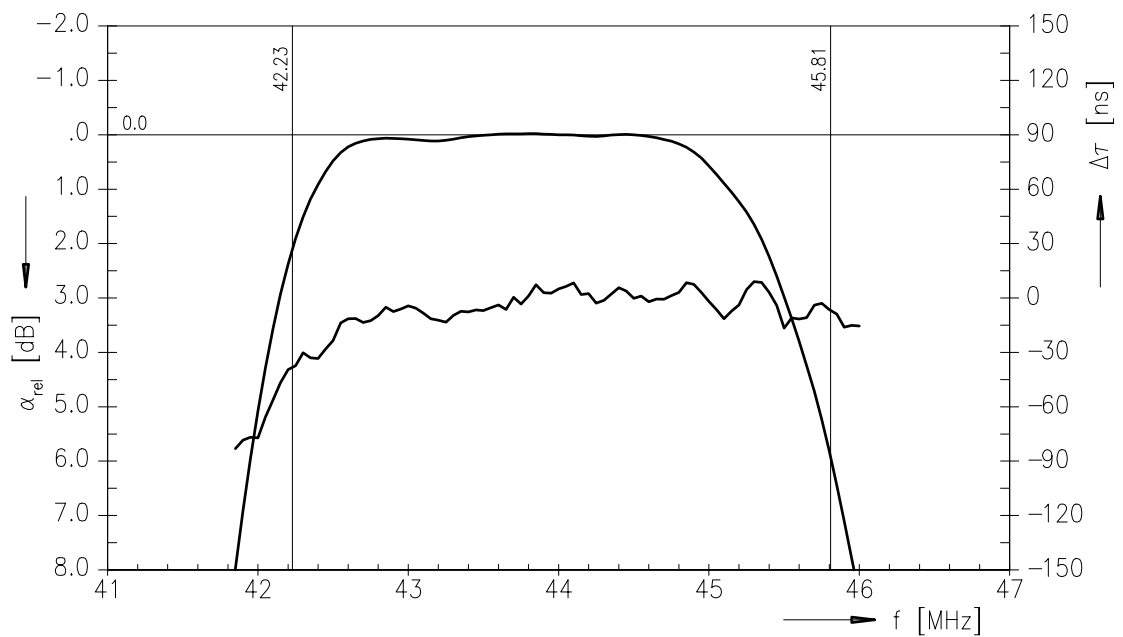
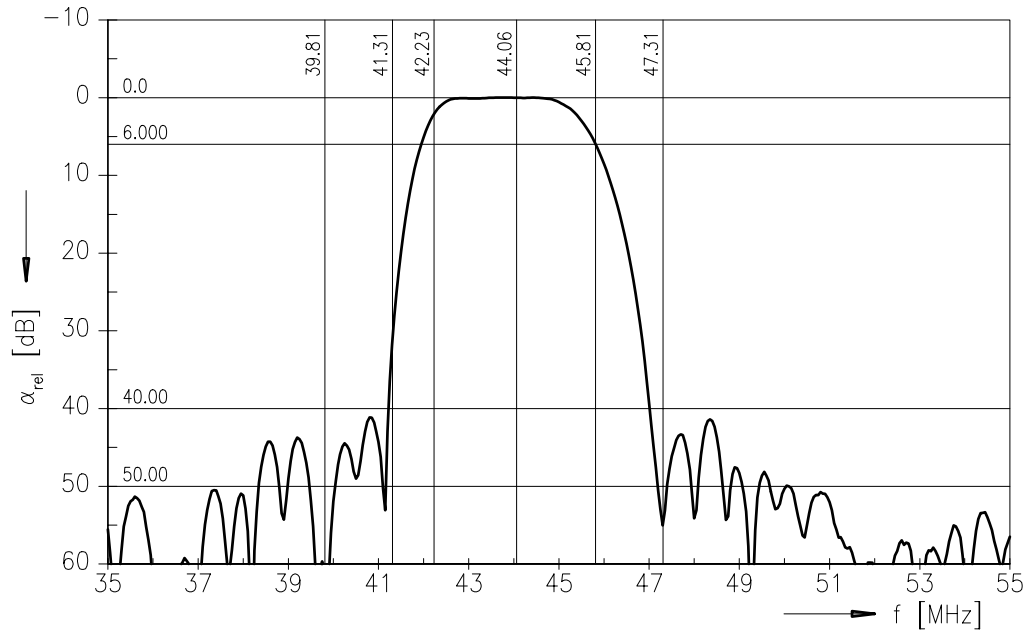
Reference temperature:  $T_A = 25 (45) \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	44,06 (44,00) MHz	10,5	12,0	13,5	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
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
<b>Reflected wave signal suppression</b>					
1,1 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
<b>Group delay predistortion</b>					
	$\Delta\tau$				
(reference frequency: 45,81 MHz)					
	42,81 (42,75) MHz	—	-10	—	ns
	42,23 (42,17) MHz	—	-40	—	ns
<b>Group delay ripple (p-p)</b>					
	$\Delta\tau$				
		—	40	—	ns
<b>Impedance at 44,06 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,4 $\parallel$ 10,8	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,9 $\parallel$ 4,4	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response





SAW Components

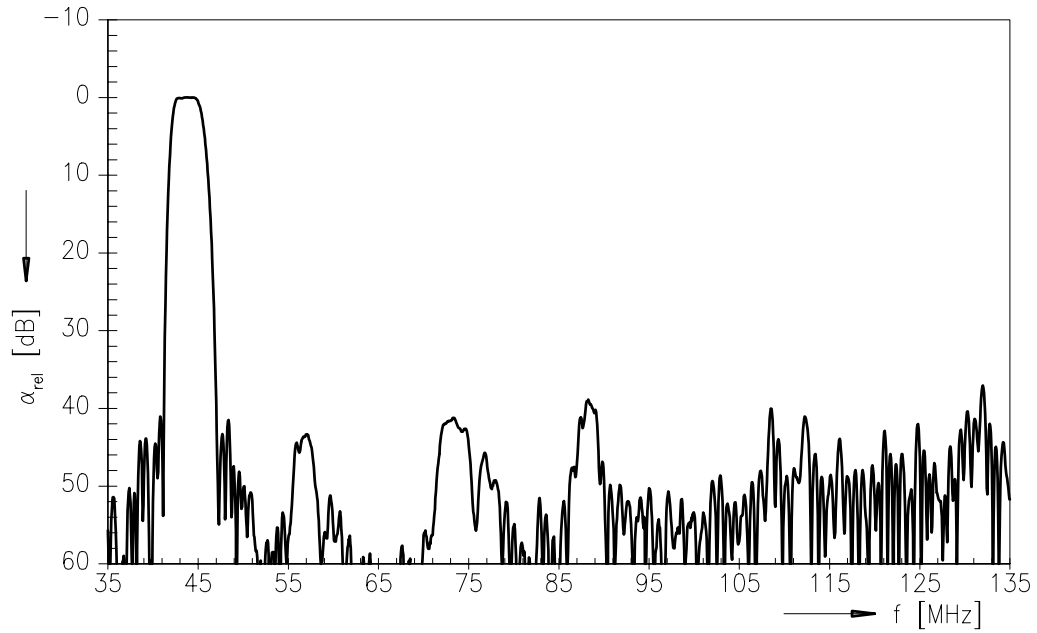
M 3951 M

IF Filter for Video Applications

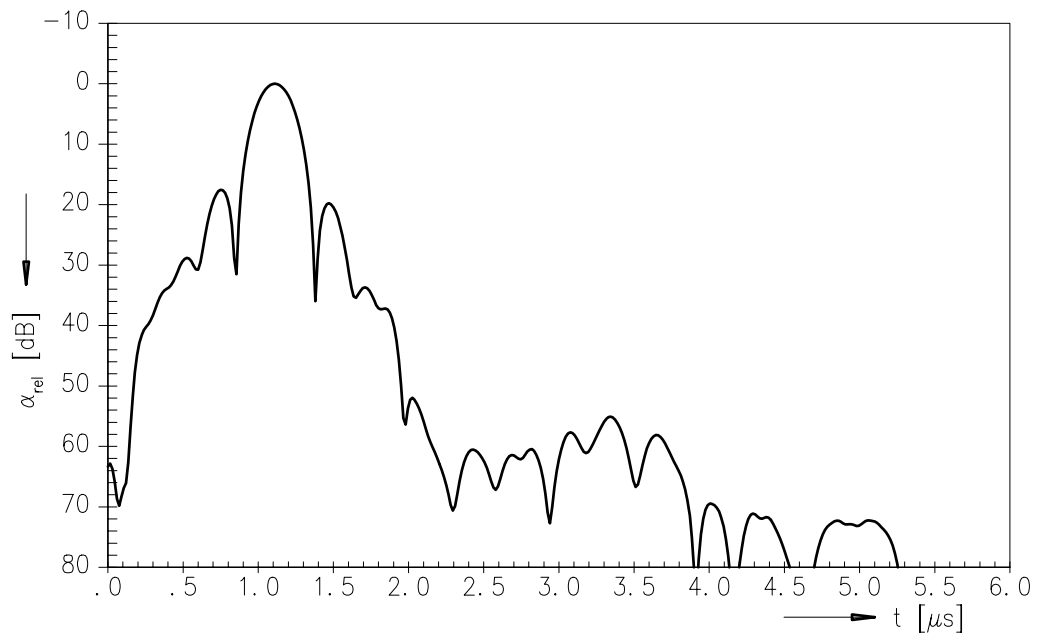
45,75 MHz

Data Sheet

### Frequency response



### Time domain response





**SAW Components**

**M 3951 M**

**IF Filter for Video Applications**

**45,75 MHz**

**Data Sheet**

**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW CE MM PD**

**P.O. Box 80 17 09, D-81617 München**

© EPCOS AG 2001. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.