



# SAW Components

Data Sheet M 3568 M





**SAW Components**

**M 3568 M**

**IF Filter for Quasi/Split Sound Applications**

**45,75 MHz**

**Data Sheet**

**Standard**

Plastic package **SIP5K**

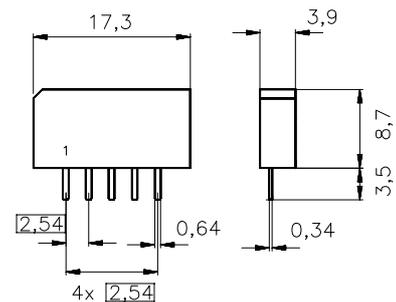
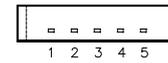
- M/N

**Features**

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- Customized group delay predistortion
- Sound channel with passband for sound carrier only

**Terminals**

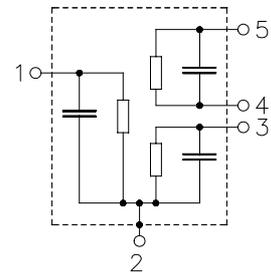
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

**Pin configuration**

- 1 Input
- 2 Chip carrier - ground
- 3 Output - sound
- 4 Output - picture
- 5 Output - picture



Type	Ordering code	Marking and package according to	Packing according to
M 3568 M	B39458-M3568-M201	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


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**Characteristics of picture channel**

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

		min.	typ.	max.	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	44,06 (44,00) MHz	12,3	13,8	15,3	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	1,4	2,4	3,4	dB
Sound carrier	41,31 (41,25) MHz	34,0	43,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	50,0	65,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	42,0	52,0	—	dB
Lower sidelobe					
	35,06 ... 39,81 (35,00 ... 39,75) MHz	41,0	45,0	—	dB
Upper sidelobe					
	47,31 ... 55,06 (47,25 ... 55,00) MHz	36,0	42,0	—	dB
<b>Reflected wave signal suppression</b>					
1,2 $\mu\text{s}$ ... 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>					
1,3 $\mu\text{s}$ ... 1,2 $\mu\text{s}$ 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 45,75 MHz)					
	42,23 (42,17) MHz	—	50	—	ns
<b>Group delay ripple (p-p)</b>					
	$\Delta\tau$				
	43,06 ... 45,81 (43,00 ... 45,75) MHz	—	40	—	ns
<b>Impedance at 44,06 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,1 $\parallel$ 19,1	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 $\parallel$ 3,1	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K



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**Characteristics of sound channel**

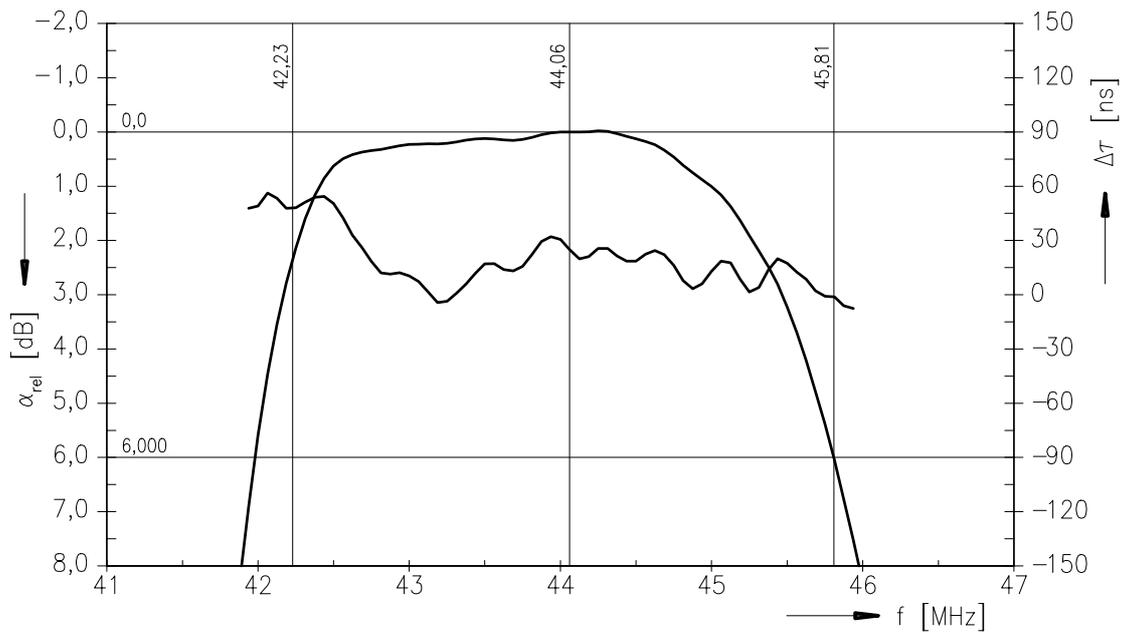
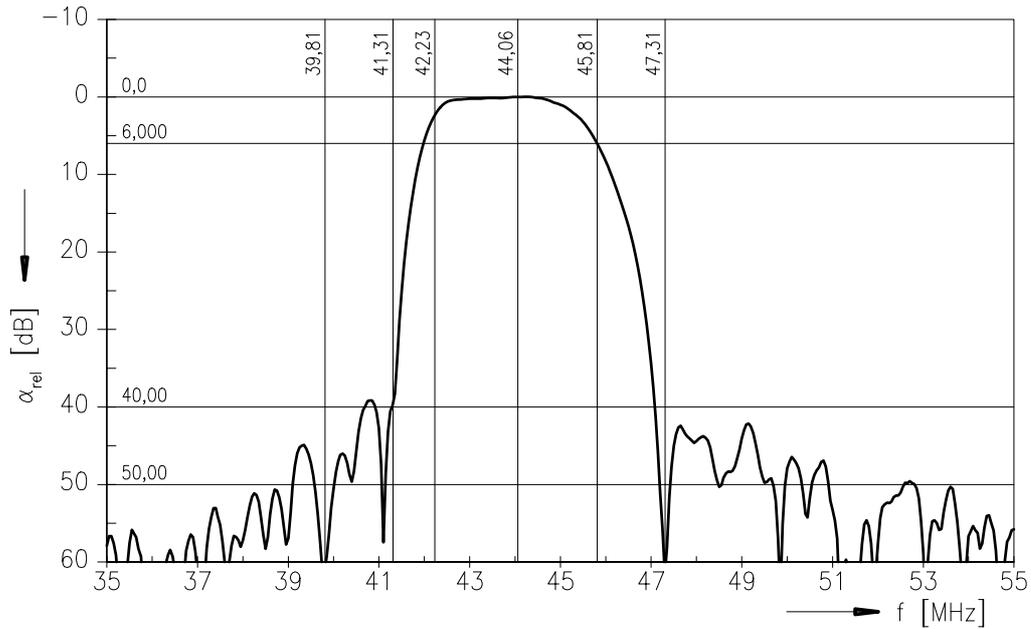
Reference temperature:  $T_A = 25 (45) \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	41,31 (41,25) MHz	10,2	11,7	13,2	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Picture carrier	45,81 (45,75) MHz	38,0	50,0	—	dB
Color carrier	42,23 (42,17) MHz	13,0	16,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	32,0	37,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	40,0	50,0	—	dB
Lower sidelobe					
	35,06 ... 39,81 (35,00 ... 39,75) MHz	32,0	40,0	—	dB
Upper sidelobe					
	47,31 ... 55,06 (47,25 ... 55,00) MHz	38,0	42,0	—	dB
<b>Impedance</b> at 41,31 MHz					
	Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	3,3 $\parallel$ 2,6	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response of picture channel





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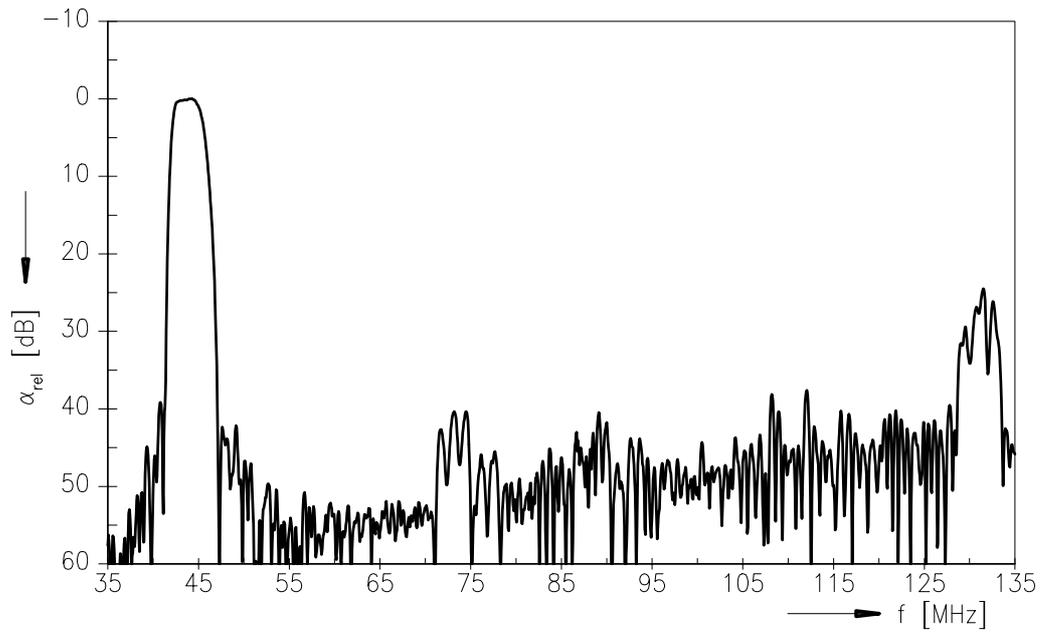
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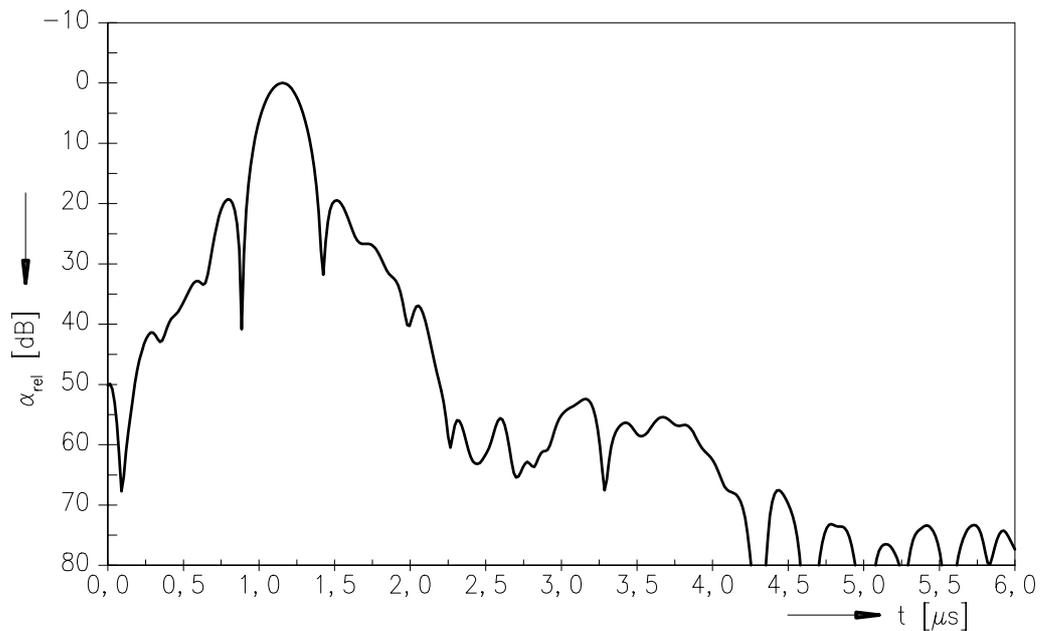
45,75 MHz

Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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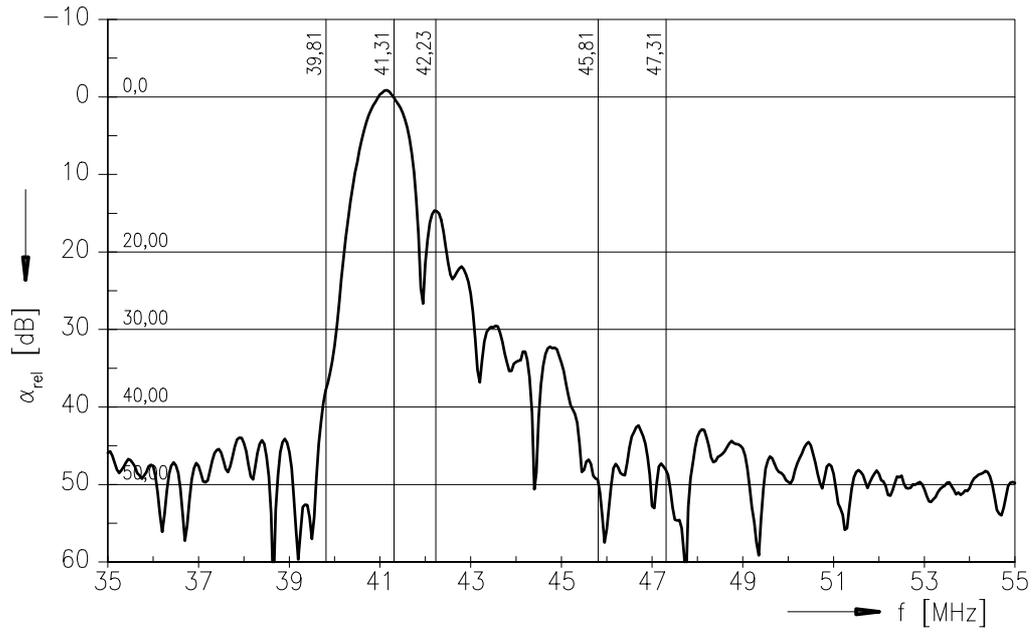
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