



SAW Components

Data Sheet K 3562 M





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IF Filter for Quasi/Split Sound Applications

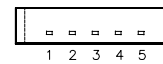
38,00 MHz

Data Sheet

Standard

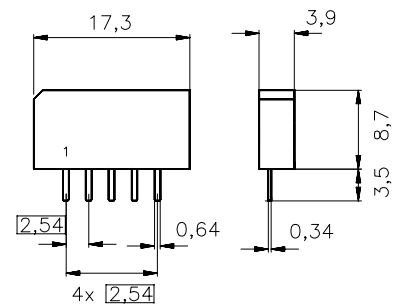
- B/G
- D/K
- I

Plastic package **SIP5K**



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 pass band for sound carriers between 31,5 MHz and 32,5 MHz



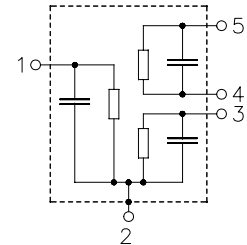
Terminals

- 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
K 3562 M	B39380-K3562-M201	C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

Operating 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	K 3562 M
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Data Sheet

Characteristics of picture channel

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

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	36,50 MHz	14,3	15,8	17,3	dB
Relative attenuation	α_{rel}				
Picture carrier	38,00 MHz	5,2	6,2	7,2	dB
Color carrier	33,57 MHz	0,3	1,3	2,3	dB
Sound carrier	31,50 MHz	30,0	39,0	—	dB
	32,50 MHz	25,0	32,0	—	dB
Adjacent picture carrier	30,00 MHz	36,0	46,0	—	dB
	31,00 MHz	30,0	44,0	—	dB
Adjacent sound carrier	39,50 MHz	35,0	42,0	—	dB
	40,00 MHz	35,0	43,0	—	dB
Lower sidelobe	25,00 ... 30,00 MHz	38,0	44,0	—	dB
Upper sidelobe	40,00 ... 45,00 MHz	37,0	43,0	—	dB
Reflected wave signal suppression					
1,2 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 36,50 MHz)		42,0	50,0	—	dB
Feedthrough signal suppression					
1,2 μs ... 1,1 μs before main pulse (test pulse 250 ns, carrier frequency 36,50 MHz)		50,0	56,0	—	dB
Group delay predistortion	$\Delta\tau$				
(reference frequency 38,00 MHz)					
	35,00 MHz	—	-40	—	ns
	34,50 MHz	—	-60	—	ns
	34,00 MHz	—	-95	—	ns
	33,50 MHz	—	-130	—	ns
Impedance at 36,50 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,4 \parallel 20,8	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,2 \parallel 3,7	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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Data Sheet

Characteristics of sound channel

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

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	31,50 MHz	12,3	13,8	15,3	dB
Relative attenuation	α_{rel}				
Sound carrier	32,50 MHz	0,8	1,8	2,8	dB
Picture carrier	38,00 MHz	35,0	45,0	—	dB
Color carrier	33,57 MHz	16,0	20,0	—	dB
Adjacent picture carrier	30,00 MHz	26,0	32,0	—	dB
	31,00 MHz	—	3,0	—	dB
Adjacent sound carrier	39,50 MHz	36,0	46,0	—	dB
	40,00 MHz	36,0	48,0	—	dB
Lower sidelobe	25,00 ... 30,00 MHz	26,0	32,0	—	dB
Upper sidelobe	38,00 ... 45,00 MHz	32,0	38,0	—	dB
Impedance at 31,50 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	3,5 \parallel 3,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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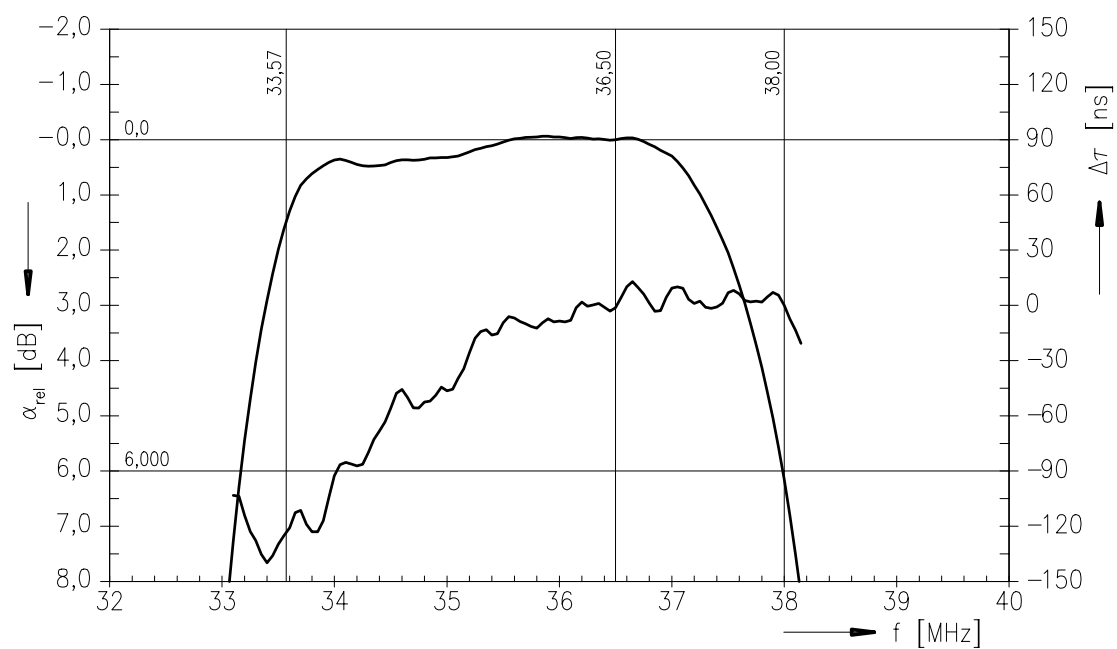
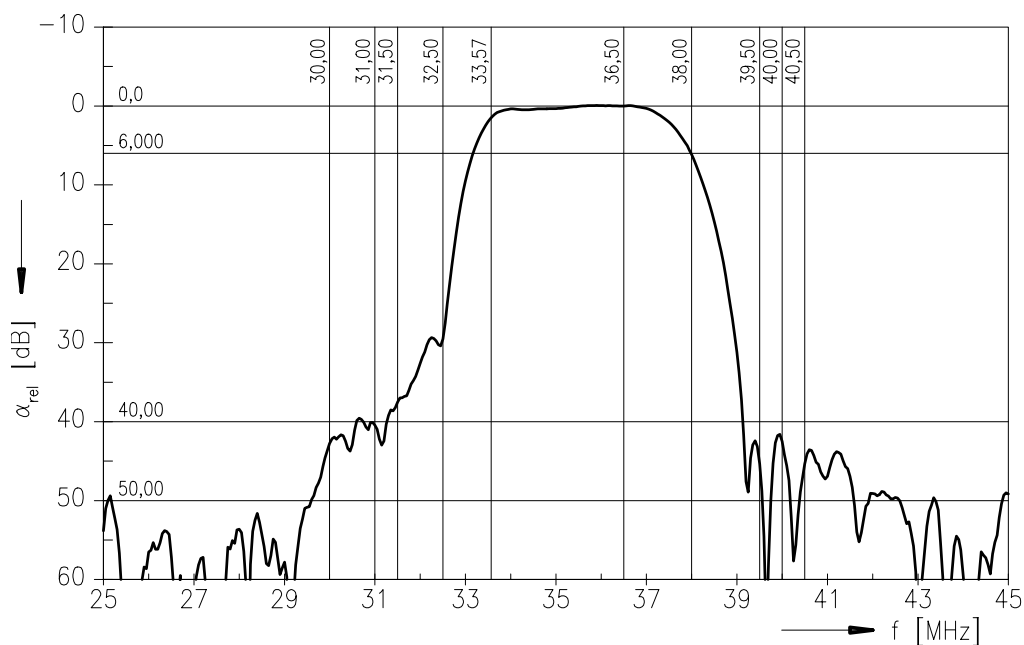
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Data Sheet

Frequency response of picture channel





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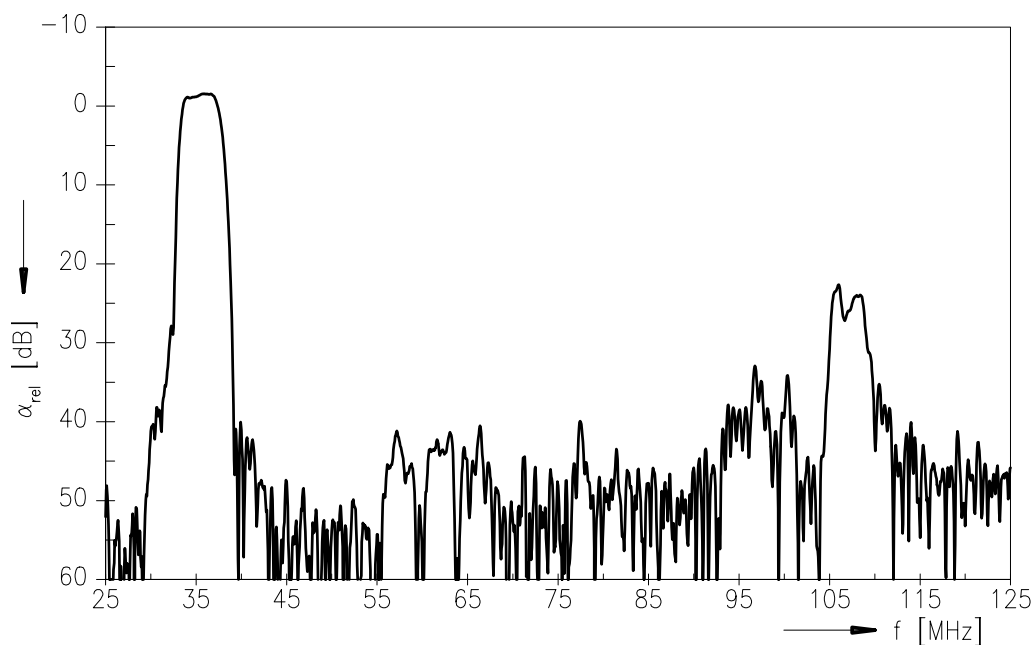
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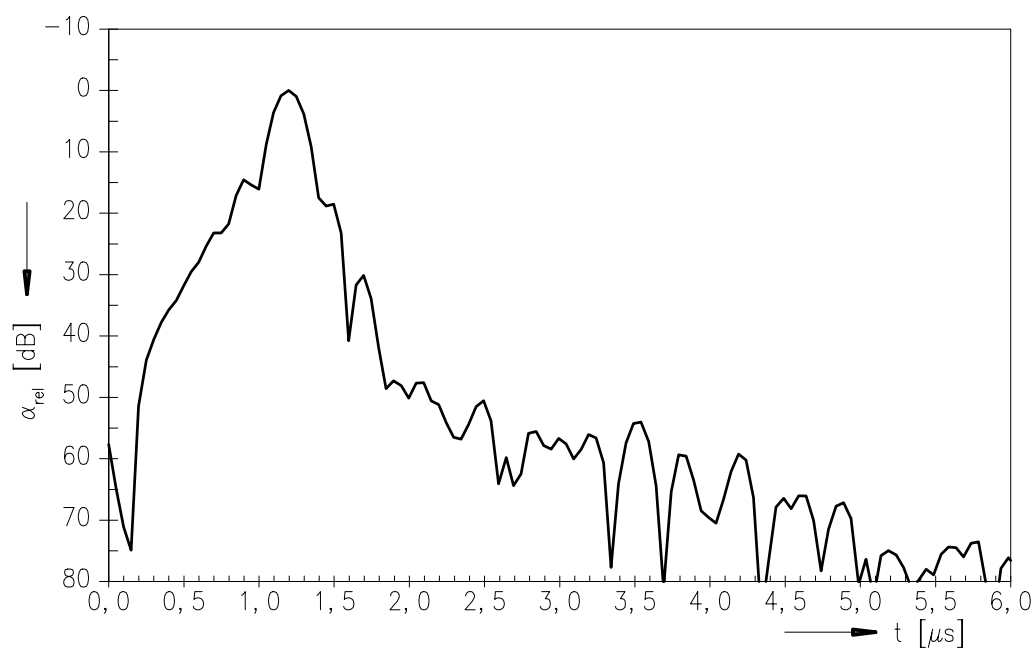
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Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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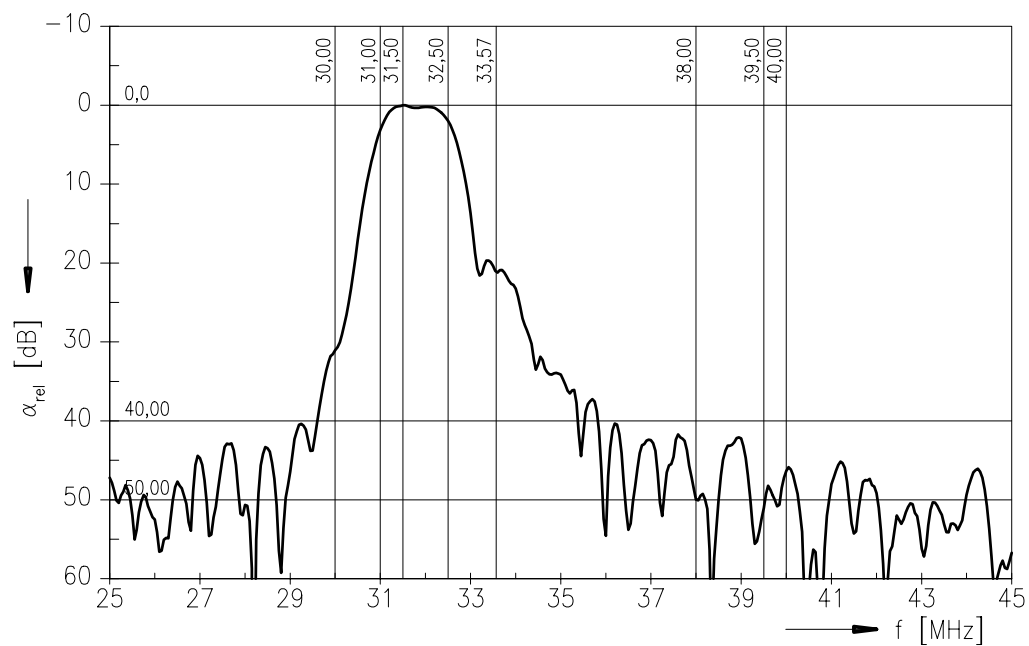
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Frequency response of sound channel





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE MM PD

P.O. Box 80 17 09, 81617 Munich, GERMANY

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