



SAW Components

Data Sheet K 3565 M

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The graphic is rendered in a light gray color against a dark, textured background.



SAW Components

K 3565 M

IF Filter for Quasi/Split Sound Applications

38,90 MHz

Data Sheet

Standard

- B/G
- D/K

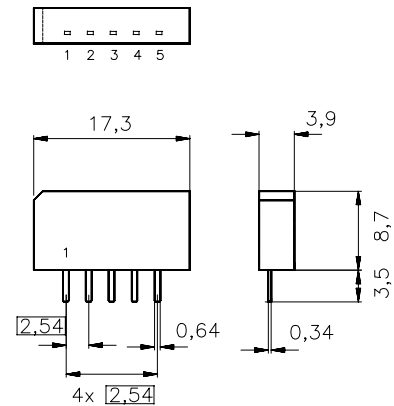
Features

- 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 32,4 MHz and 33,4 MHz

Terminals

- Tinned CuFe alloy

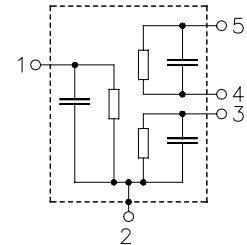
Plastic package SIP5K



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 3565 M	B39389-K3565-M201	C61157-A1-A15	F61064-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



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Characteristics of picture channel

Reference temperature: $T_A = 25\text{ °C}$
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	37,40 MHz	12,9	14,4	15,9	dB
Relative attenuation α_{rel}					
Picture carrier	38,90 MHz	4,8	5,8	6,8	dB
Color carrier	34,47 MHz	0,5	1,5	2,5	dB
Sound carrier	32,40 MHz	35,0	39,0	—	dB
	33,40 MHz	35,0	51,0	—	dB
Adjacent picture carrier	30,90 MHz	45,0	59,0	—	dB
	31,90 MHz	45,0	59,0	—	dB
Adjacent sound carrier	40,40 MHz	45,0	61,0	—	dB
	41,40 MHz	45,0	63,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	39,0	46,0	—	dB
Upper sidelobe	41,40 ... 45,00 MHz	37,0	43,0	—	dB
Reflected wave signal suppression					
1,4 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	51,0	—	dB
Feedthrough signal suppression					
1,2 μ s ... 1,1 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
Group delay predistortion $\Delta\tau$					
(reference frequency 38,90 MHz)					
	35,90 MHz	—	-60	—	ns
	34,47 MHz	—	40	—	ns
Impedance at 37,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,2 \parallel 24,2	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,0 \parallel 4,0	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	-72	—	ppm/K



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Characteristics of sound channel

Reference temperature:

$$T_A = 25\text{ °C}$$

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	33,40 MHz	15,4	16,9	18,4	dB
Relative attenuation	α_{rel}				
Sound carrier	32,40 MHz	-1,5	-0,5	0,5	dB
Picture carrier	38,90 MHz	30,0	34,0	—	dB
Color carrier	34,47 MHz	22,0	27,0	—	dB
Adjacent picture carrier	30,90 MHz	27,0	32,0	—	dB
	31,90 MHz	—	8,0	—	dB
Adjacent sound carrier	40,40 MHz	35,0	41,0	—	dB
	41,40 MHz	38,0	46,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	25,0	31,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	25,0	30,0	—	dB
Impedance at 33,40 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	5,1 \parallel 2,2	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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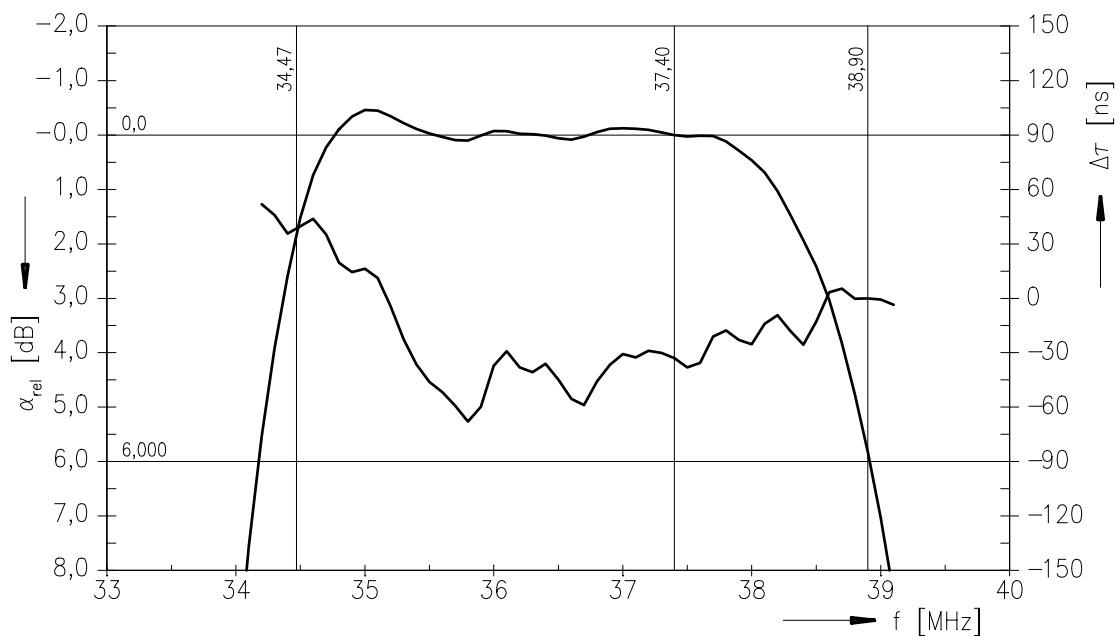
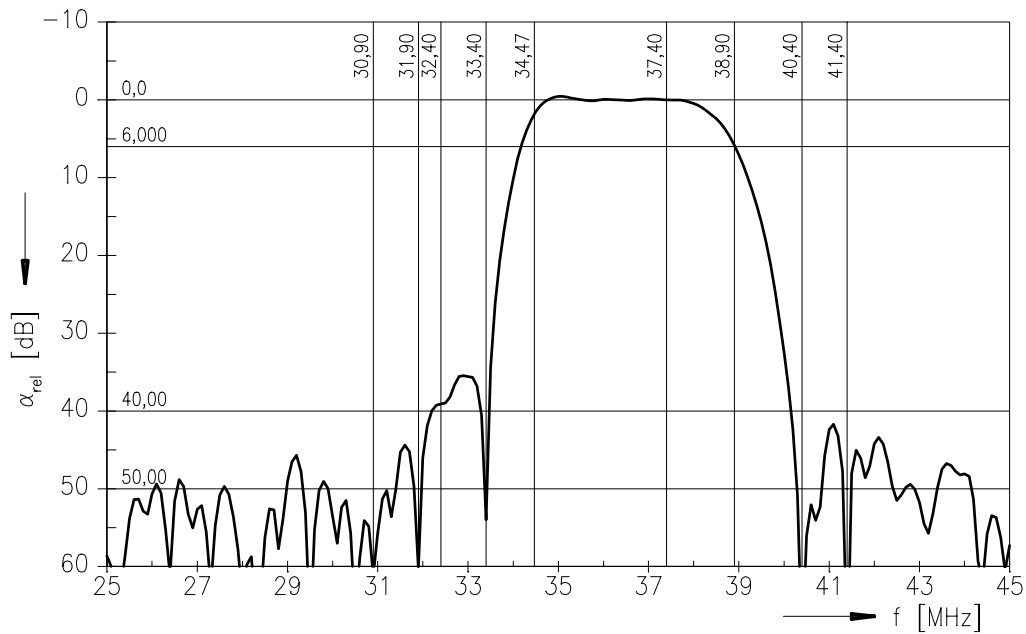
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Frequency response of picture channel





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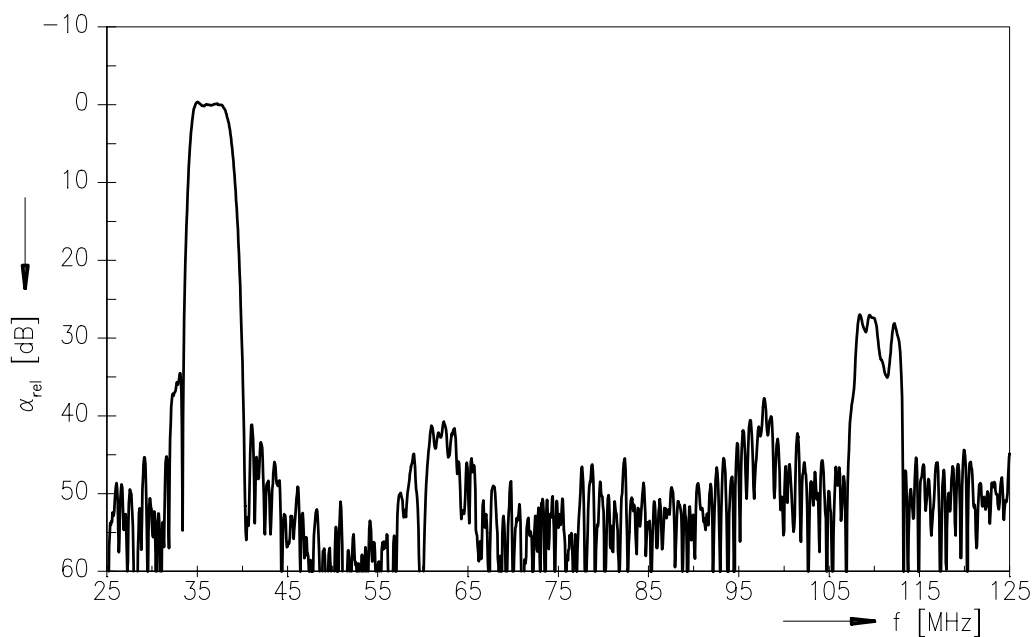
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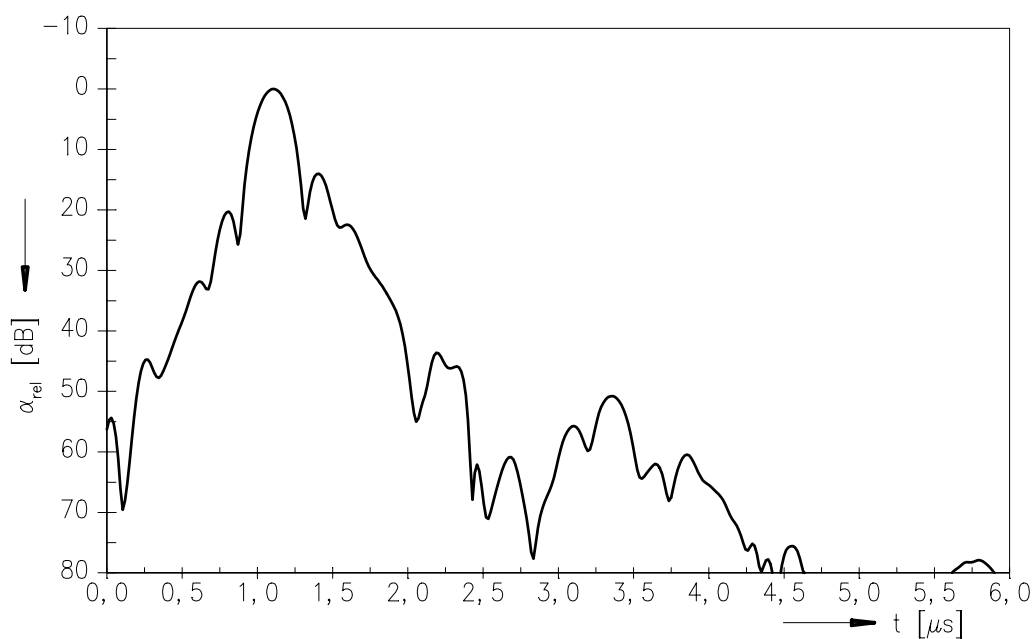
38,90 MHz

Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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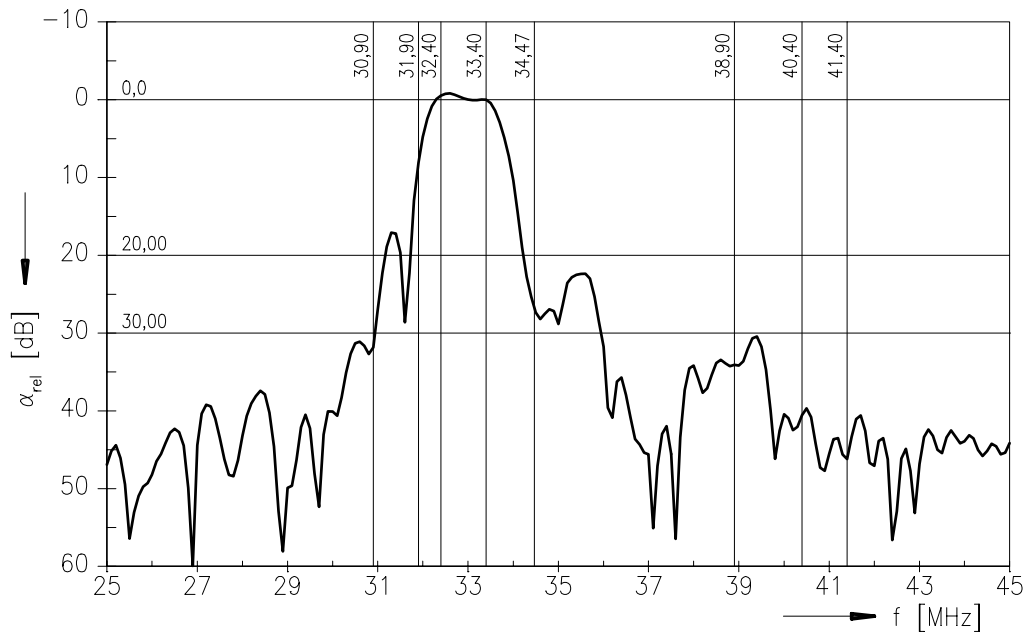
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Frequency response of sound channel





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