



SAW Components

Data Sheet K 3350 K





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K 3350 K

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
- Reduced group delay predistortion as compared with standard B/G half
- Sound channel with one passband for sound carriers at 32,40 MHz (D/K) and 33,40 MHz (B/G)
- Suitable for CENELEC EN 55020

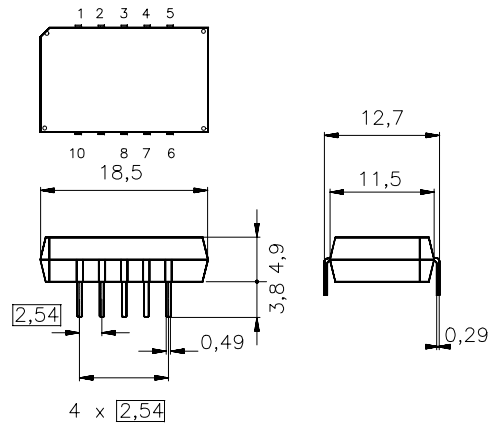
Terminals

- Tinned CuFe alloy

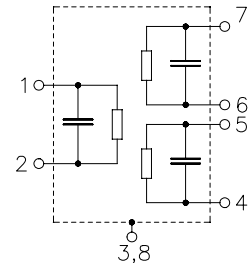
Pin configuration

- | | |
|------|-----------------------|
| 1 | Input |
| 2 | Input - ground |
| 3; 8 | Chip carrier - ground |
| 4; 5 | Output - sound |
| 6; 7 | Output - picture |
| 9 | Free |
| 10 | Not connected |

Plastic package **DIP10K**



Dimensions in mm, approx. weight 1,8 g



Type	Ordering code	Marking and package according to	Packing according to
K 3350 K	B39389-K3350-K100	C61157-A2-A3	F61074-V8068-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:

$$T_A = 25\text{ }^{\circ}\text{C}$$

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	37,40 MHz	13,0	14,5	16,0	dB
Relative attenuation α_{rel}					
Picture carrier	38,90 MHz	5,2	6,2	7,2	dB
Color carrier	34,47 MHz	0,4	1,4	2,4	dB
Sound carrier	33,40 MHz	34,0	43,0	—	dB
Adjacent picture carrier	30,90 MHz	45,0	53,0	—	dB
	31,90 MHz	47,0	57,0	—	dB
	31,40 MHz	—	60,0	—	dB
	32,40 MHz	47,0	55,0	—	dB
	40,15 MHz	43,0	59,0	—	dB
Adjacent sound carrier	40,40 MHz	45,0	56,0	—	dB
	41,40 MHz	43,0	55,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	39,0	44,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	34,0	40,0	—	dB
Reflected wave signal suppression					
1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,2 μs ... 1,1 μs 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)					
	36,90 MHz	—	−90	—	ns
	34,47 MHz	—	30	—	ns
Impedance at 37,40 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,1 \parallel 24,8	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,6 \parallel 4,1	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	−72	—	ppm/K



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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	33,40 MHz	12,5	14,0	15,5	dB
Relative attenuation	α_{rel}				
Sound carrier	33,05 MHz	-1,5	-0,5	0,5	dB
	32,40 MHz	-1,4	-0,4	0,6	dB
Picture carrier	38,90 MHz	41,0	49,0	—	dB
Color carrier	34,47 MHz	28,0	34,0	—	dB
Adjacent picture carrier	30,90 MHz	36,0	43,0	—	dB
Adjacent sound carrier	40,40 MHz	44,0	52,0	—	dB
	41,40 MHz	46,0	56,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	36,0	41,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	41,0	48,0	—	dB
Impedance at 33,40 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	3,6 \parallel 2,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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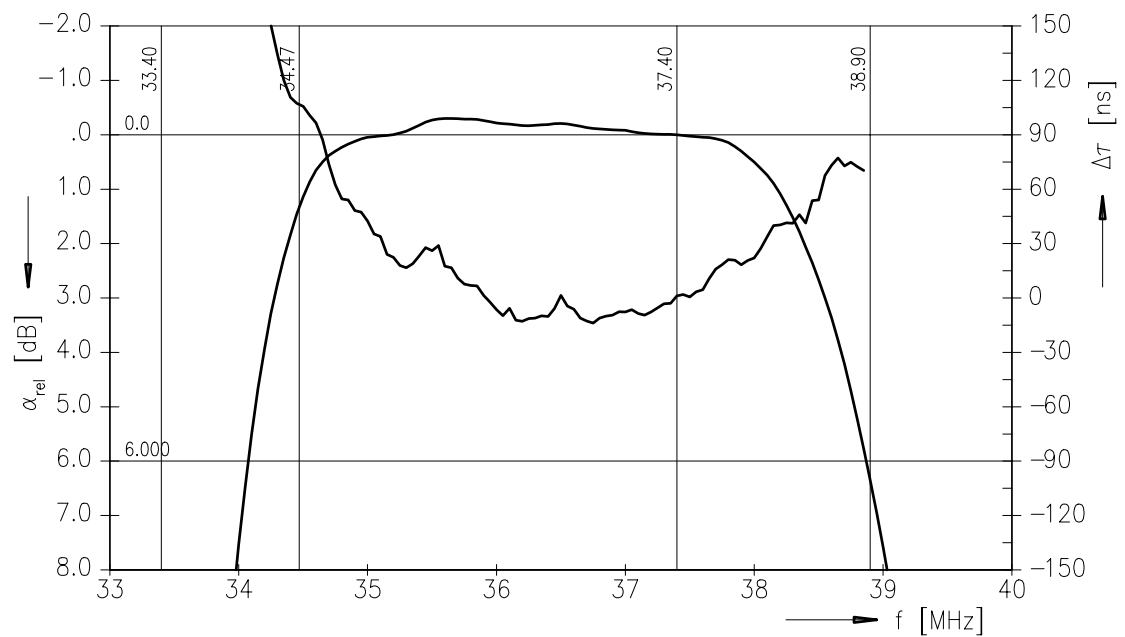
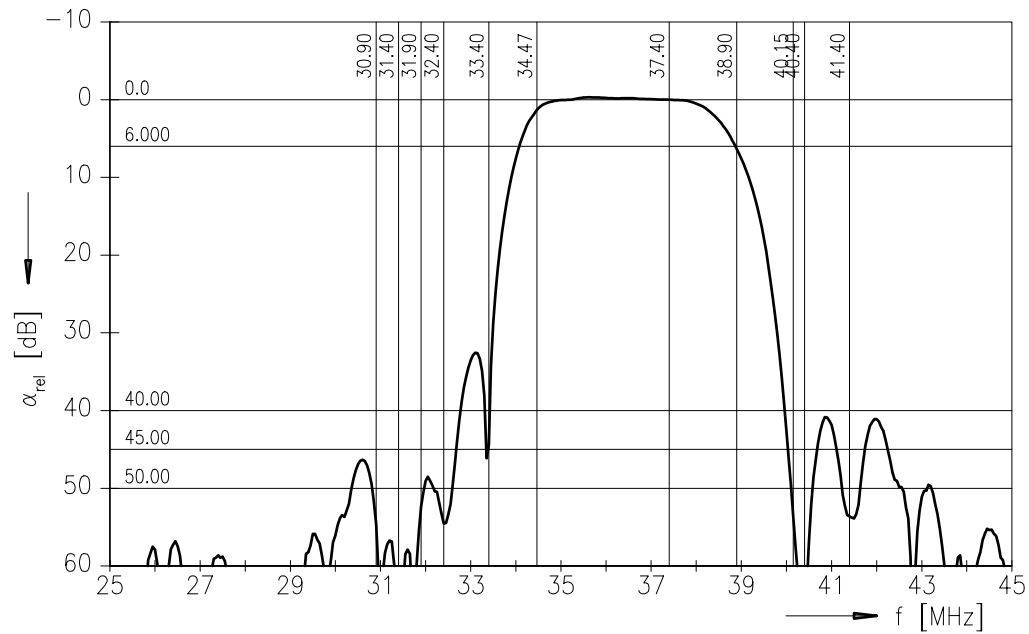
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Frequency response of picture channel





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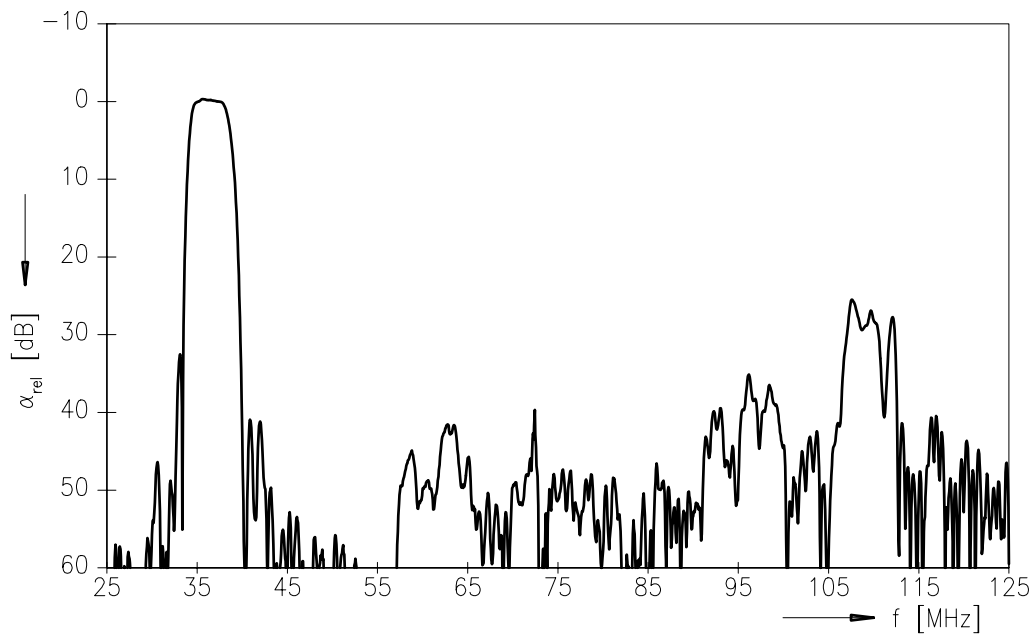
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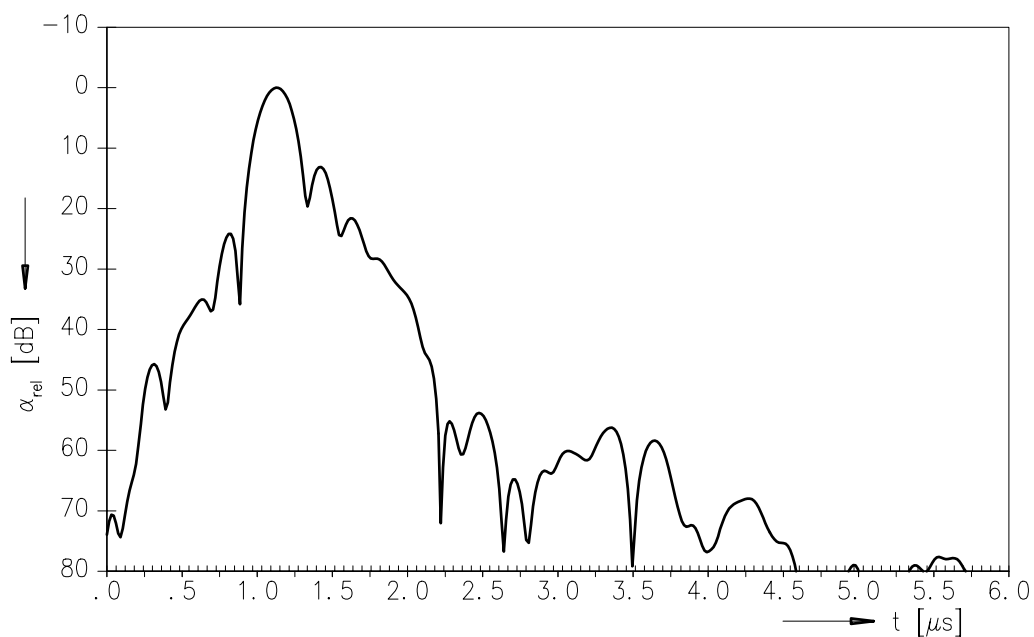
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Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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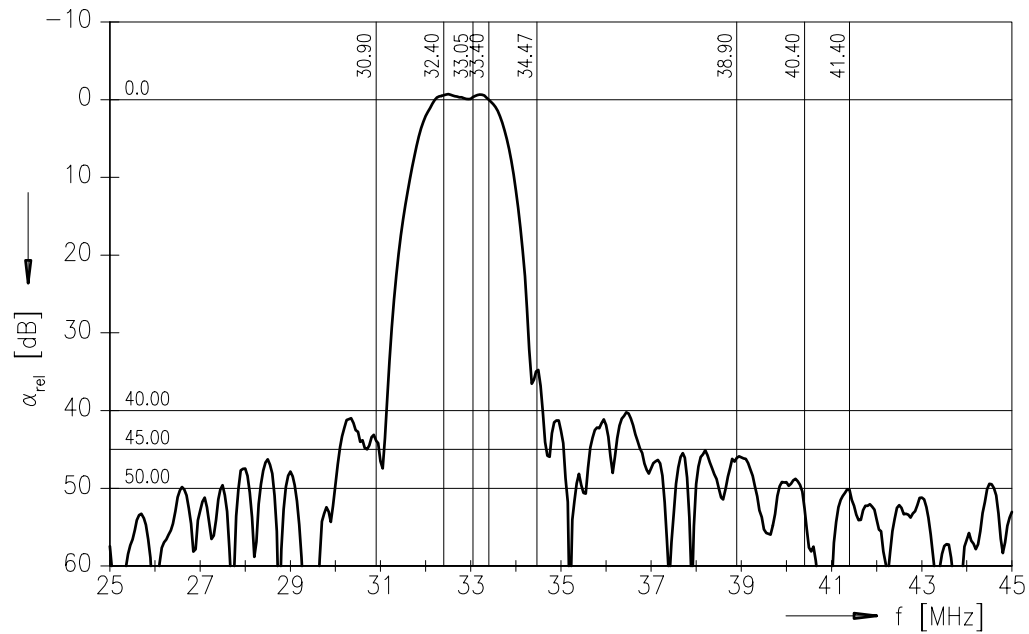
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Frequency response of sound channel





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Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, D-81617 München

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