



SAW Components

Data Sheet G 3355 K

Data Sheet

A large, stylized, 3D-rendered version of the EPCOS logo, featuring the word "EPCOS" in a bold, sans-serif font, set against a dark, textured background with a glowing effect.



SAW Components

G 3355 K

IF Filter for Quasi/Split Sound Applications

38,90 MHz

Data Sheet

Standard

Plastic package **DIP10K**

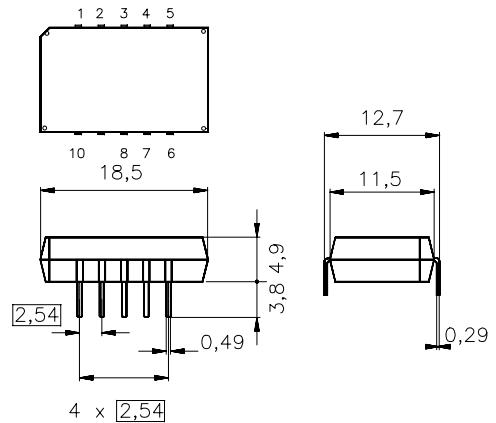
- B/G

Features

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- Group delay predistortion
- Sound channel with passband only for sound carriers at 33,40 MHz and 33,05 MHz (NICAM)
- Suitable for CENELEC EN 55020

Terminals

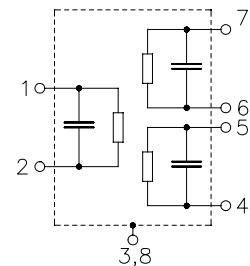
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,8 g

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



| Type | Ordering code | Marking and package according to | Packing according to |
|----------|-------------------|----------------------------------|----------------------|
| G 3355 K | B39389-G3355-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: $T_A = 25\text{ °C}$
 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 | 12,5 | 14,0 | 15,5 | dB |
| Relative attenuation | | | | | |
| | α_{rel} | | | | |
| Picture carrier | 38,90 MHz | 5,0 | 6,0 | 7,0 | dB |
| Color carrier | 34,47 MHz | -0,6 | 0,4 | 1,4 | dB |
| Sound carrier | 33,40 MHz | 30,0 | 48,0 | — | dB |
| Adjacent picture carrier | 30,90 MHz | 46,0 | 60,0 | — | dB |
| | 31,90 MHz | 48,0 | 56,0 | — | dB |
| | 32,40 MHz | 46,0 | 55,0 | — | dB |
| | 40,15 MHz | 38,0 | 48,0 | — | dB |
| Adjacent sound carrier | 40,40 MHz | 46,0 | 60,0 | — | dB |
| | 41,40 MHz | 45,0 | 59,0 | — | dB |
| Lower sidelobe | 25,00 ... 31,90 MHz | 40,0 | 46,0 | — | dB |
| Upper sidelobe | 40,40 ... 45,00 MHz | 40,0 | 46,0 | — | dB |
| Reflected wave signal suppression | | | | | |
| 1,2 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) | | 42,0 | 52,0 | — | dB |
| Feedthrough signal suppression | | | | | |
| 1,2 μ s ... 1,1 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) | | — | 56,0 | — | dB |
| Group delay predistortion | | | | | |
| (reference frequency 38,90 MHz) | | | | | |
| | $\Delta\tau$ | | | | |
| | 36,30 MHz | — | -55 | — | ns |
| | 34,47 MHz | — | 40 | — | ns |
| Impedance at 37,40 MHz | | | | | |
| | Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | — | 1,0 \parallel 24,4 | — | k Ω \parallel pF |
| | Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | — | 1,6 \parallel 3,9 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | | | | | |
| | TC_f | — | -72 | — | ppm/K |



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Characteristics of sound channel

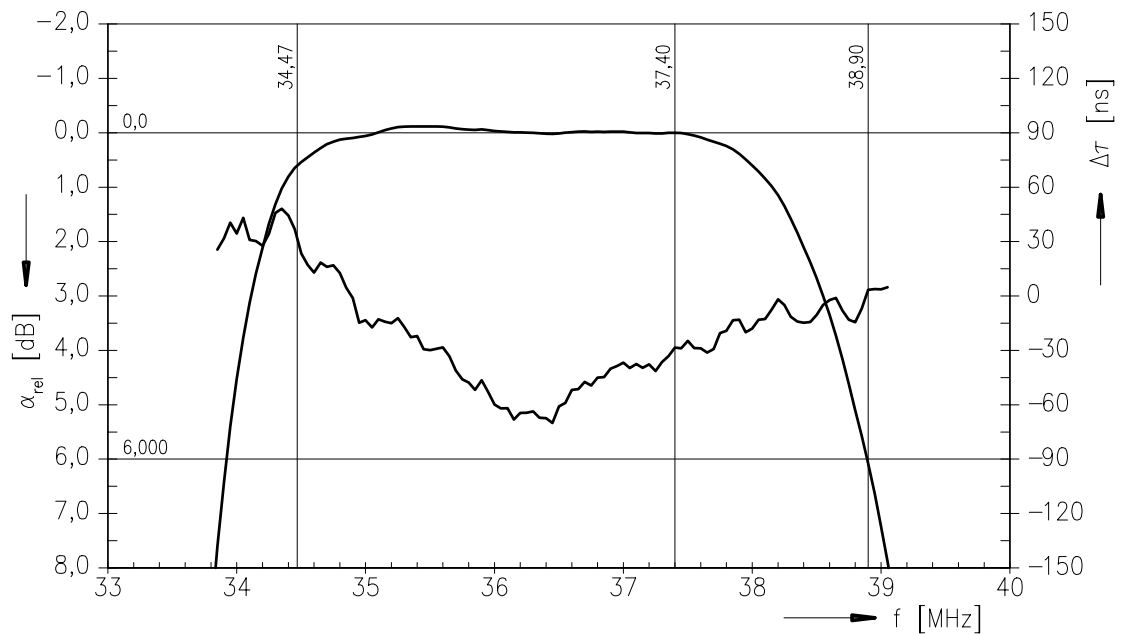
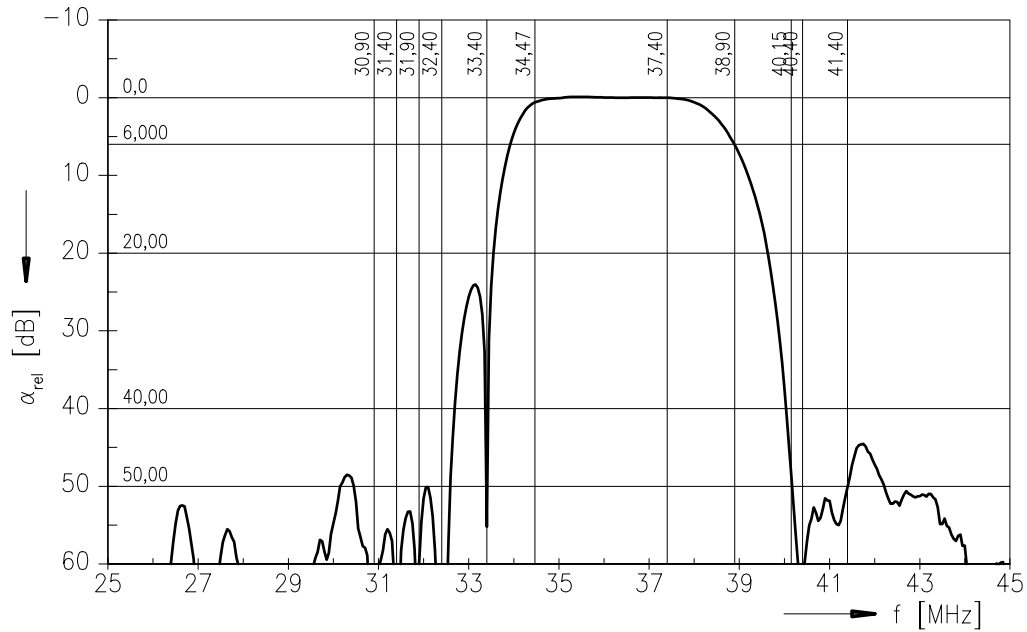
Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

| | | min. | typ. | max. | |
|---|---|-------------|---------------------|-------------|---------------------------|
| Insertion attenuation | | | | | |
| | α | | | | |
| Reference level for the following data | 33,05 MHz | 12,7 | 14,2 | 15,7 | dB |
| Relative attenuation | | | | | |
| | α_{rel} | | | | |
| Sound carrier | 33,40 MHz | 1,0 | 2,0 | 3,0 | dB |
| Picture carrier | 38,90 MHz | 42,0 | 56,0 | — | dB |
| Color carrier | 34,47 MHz | 28,0 | 35,0 | — | dB |
| Adjacent picture carrier | 30,90 MHz | 30,0 | 37,0 | — | dB |
| | 31,90 MHz | 32,0 | 41,0 | — | dB |
| Adjacent sound carrier | 40,40 MHz | 42,0 | 53,0 | — | dB |
| | 41,40 MHz | 42,0 | 54,0 | — | dB |
| Lower sidelobe | 25,00 ... 31,90 MHz | 28,0 | 34,0 | — | dB |
| Upper sidelobe | 38,90 ... 45,00 MHz | 38,0 | 46,0 | — | dB |
| Impedance at 33,05 MHz | | | | | |
| | Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | — | 4,1 \parallel 2,6 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | | | | | |
| | TC_f | — | -72 | — | ppm/K |



Data Sheet

Frequency response of picture channel





SAW Components

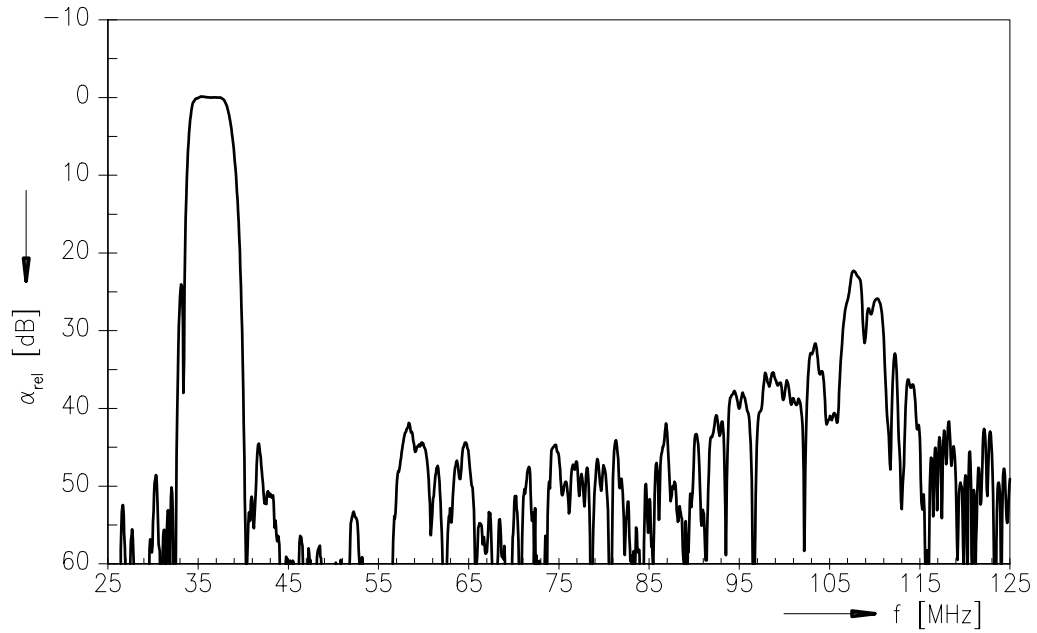
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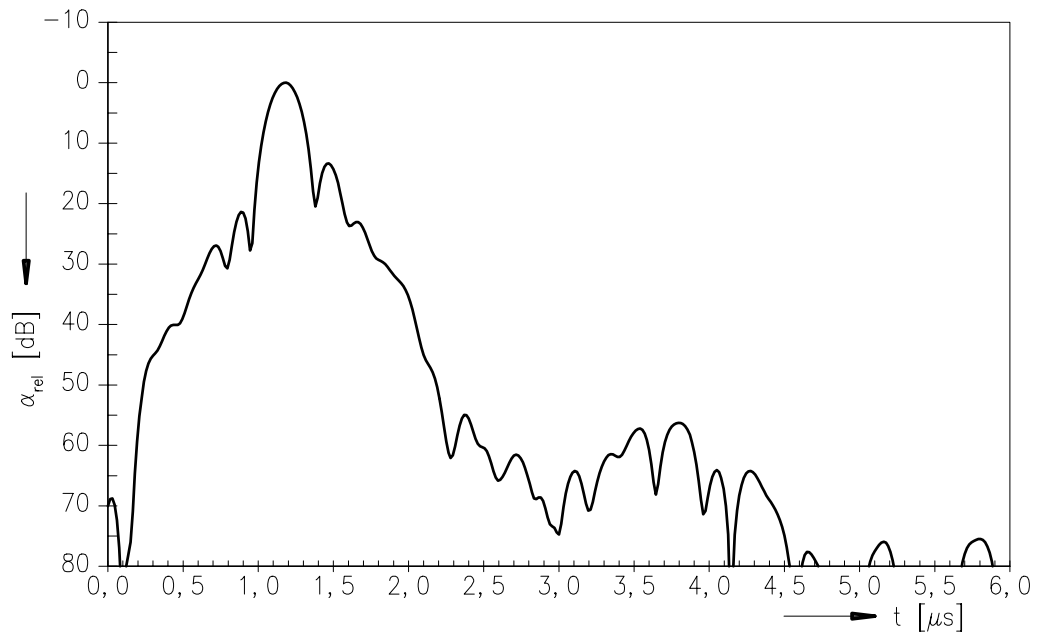
38,90 MHz

Data Sheet

Frequency response of picture channel



Time domain response of picture channel





SAW Components

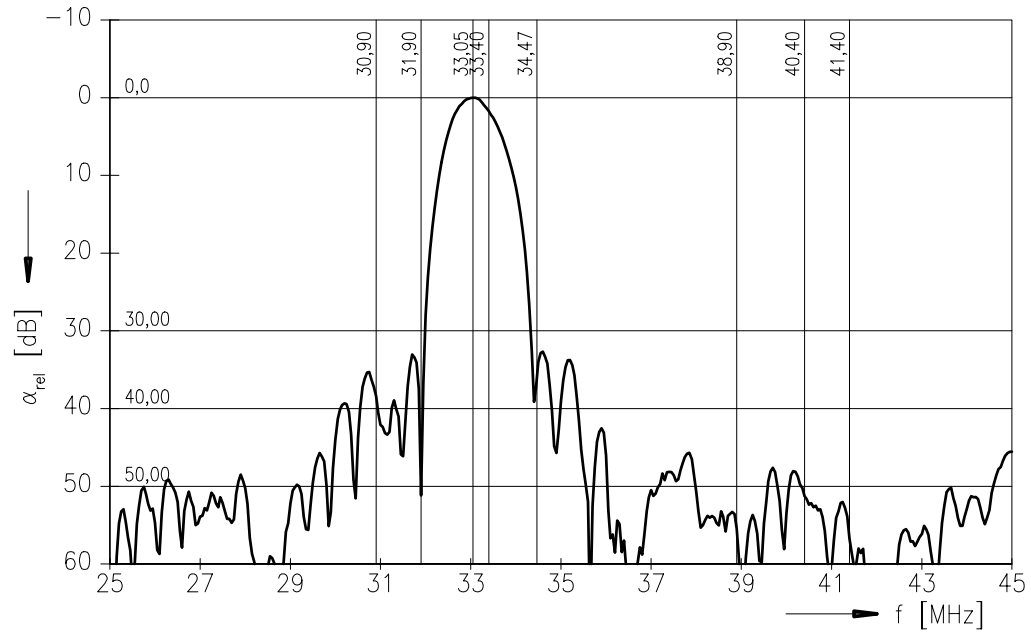
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