



SAW Components

Data Sheet M 3568 M





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IF Filter for Quasi/Split Sound Applications

45,75 MHz

Data Sheet

Standard

Plastic package **SIP5K**

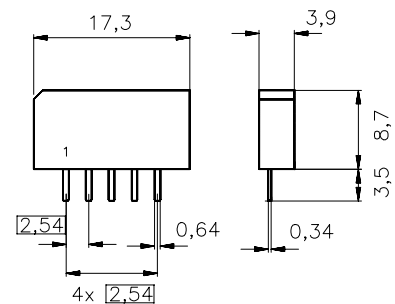
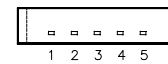
- M/N

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

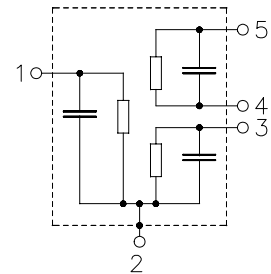
- Tinned CuFe alloy



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. | |
|--|---------------------------------------|-------------|----------------------|-------------|---------------------------|
| Insertion attenuation α | | | | | |
| Reference level for the following data | 44,06 (44,00) MHz | 12,3 | 13,8 | 15,3 | dB |
| Relative attenuation α_{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 |
| Reflected wave signal suppression | | | | | |
| 1,2 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz) | | 42,0 | 52,0 | — | dB |
| Feedthrough signal suppression | | | | | |
| 1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz) | | 50,0 | 56,0 | — | dB |
| Group delay predistortion $\Delta\tau$ | | | | | |
| (reference frequency 45,75 MHz) | 42,23 (42,17) MHz | — | 50 | — | ns |
| Group delay ripple (p-p) $\Delta\tau$ | | | | | |
| | 43,06 ... 45,81 (43,00 ... 45,75) MHz | — | 40 | — | ns |
| Impedance at 44,06 MHz | | | | | |
| Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | | — | 1,1 \parallel 19,1 | — | k Ω \parallel pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | | — | 1,6 \parallel 3,1 | — | k Ω \parallel pF |
| Temperature coefficient of frequency TC_f | | — | -72 | — | ppm/K |



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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. | |
|---|---|-------------|---------------------|-------------|---------------------------|
| Insertion attenuation | α | | | | |
| Reference level for the following data | 41,31 (41,25) MHz | 10,2 | 11,7 | 13,2 | dB |
| Relative attenuation | α_{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 |
| Impedance at 41,31 MHz | | | | | |
| | Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | — | 3,3 \parallel 2,6 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | TC_f | — | -72 | — | ppm/K |



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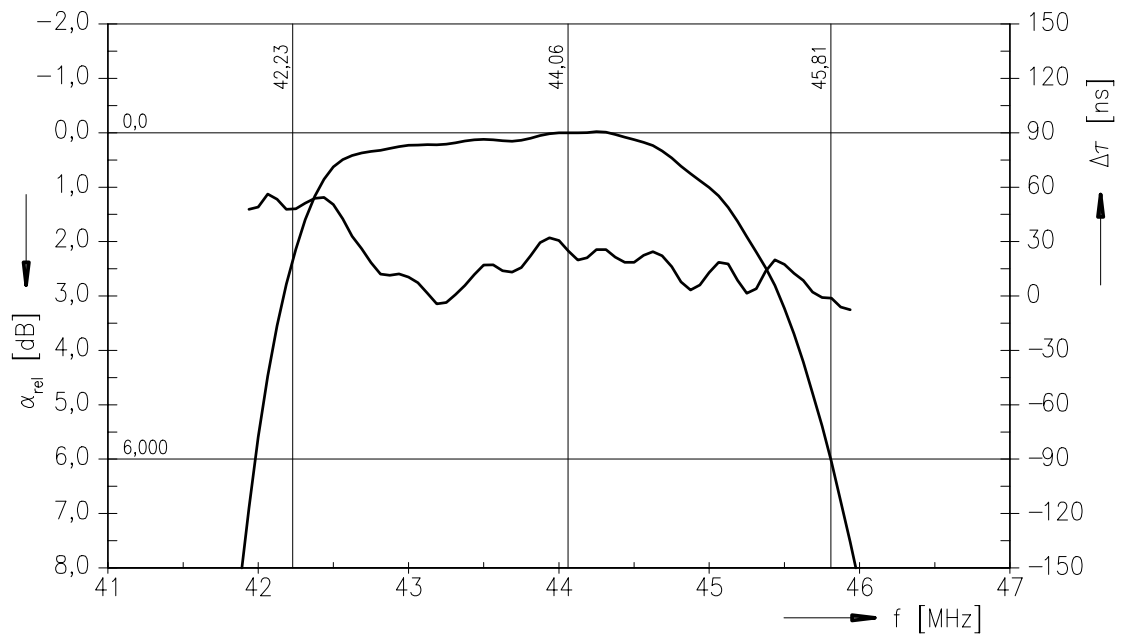
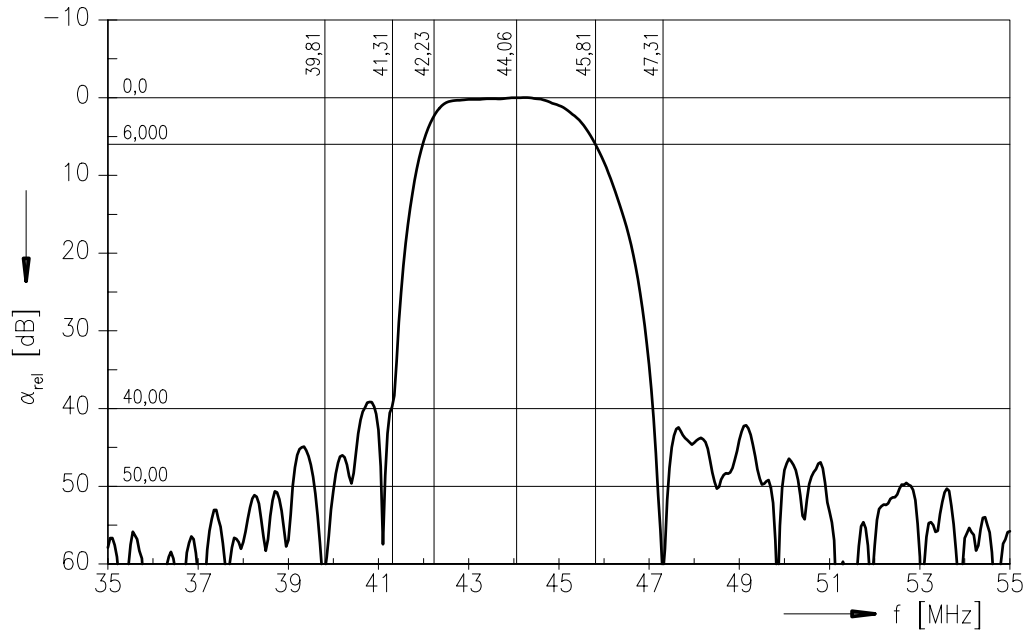
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Frequency response of picture channel





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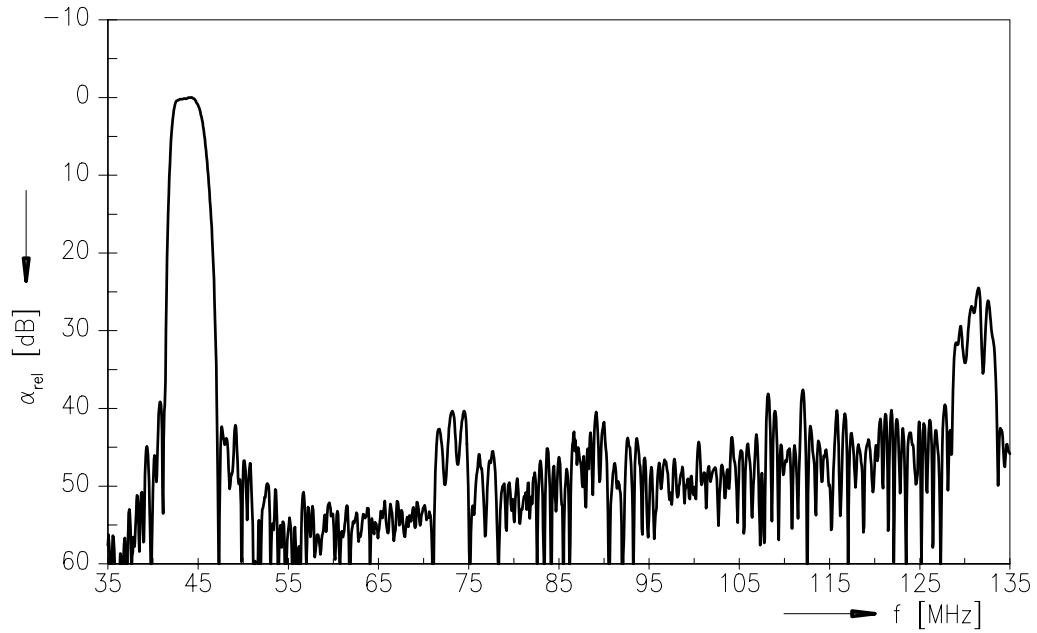
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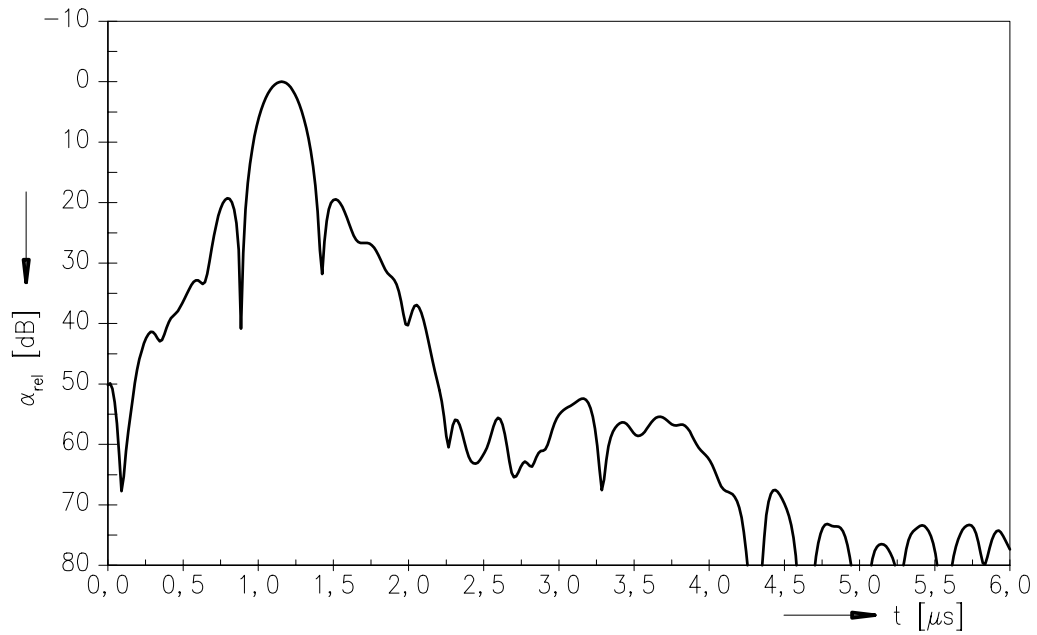
45,75 MHz

Data Sheet

Frequency response of picture channel



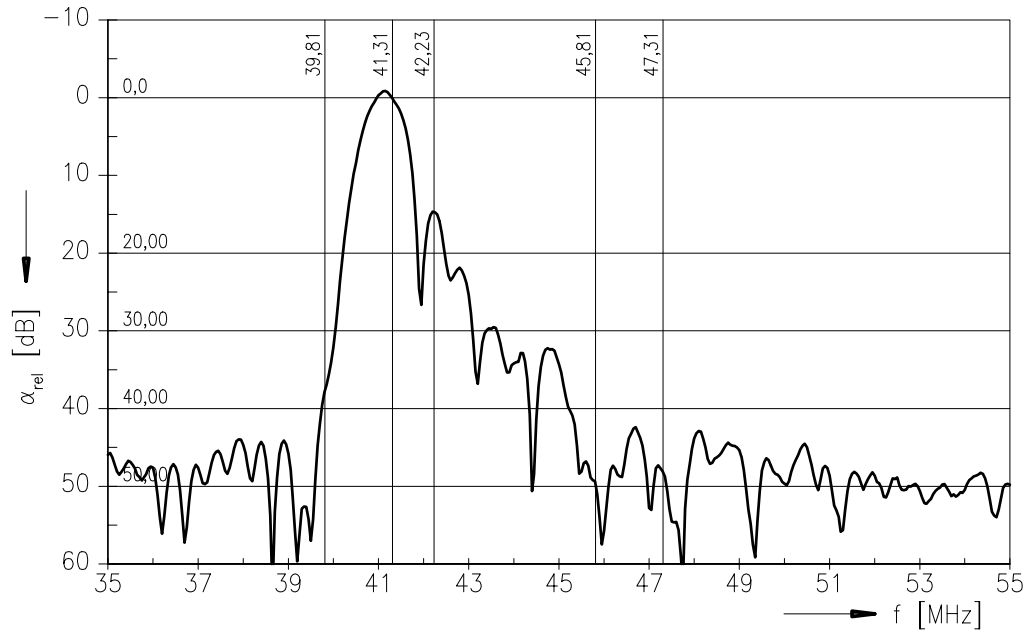
Time domain response of picture channel





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Frequency response of sound channel





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