



SAW Components

Data Sheet M 1971 M





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M 1971 M

IF Filter for Intercarrier Applications

45,75 MHz

Data Sheet

Standard

- M/N

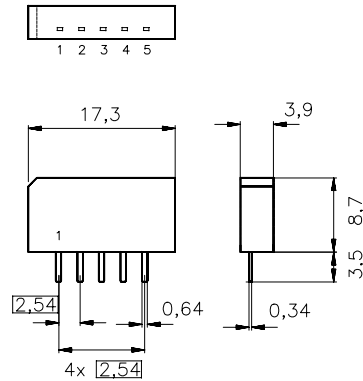
Features

- TV IF filter with Nyquist slope and sound shelf
- Constant group delay

Terminals

- Tinned CuFe alloy

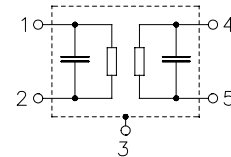
Plastic package **SIP5K**



Dimensions in mm, approx. weight 1,0 g

Pin configuration

- 1 Input
- 2 Input - ground
- 3 Chip carrier - ground
- 4 Output
- 5 Output



| Type | Ordering code | Marking and package according to | Packing according to |
|----------|-------------------|----------------------------------|----------------------|
| M 1971 M | B39458-M1971-M100 | 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

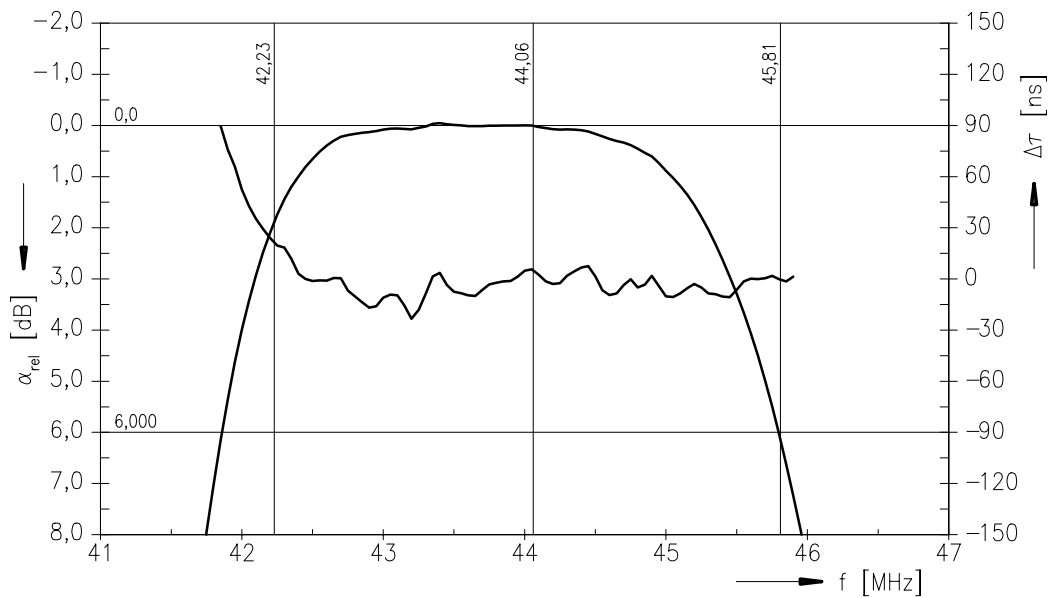
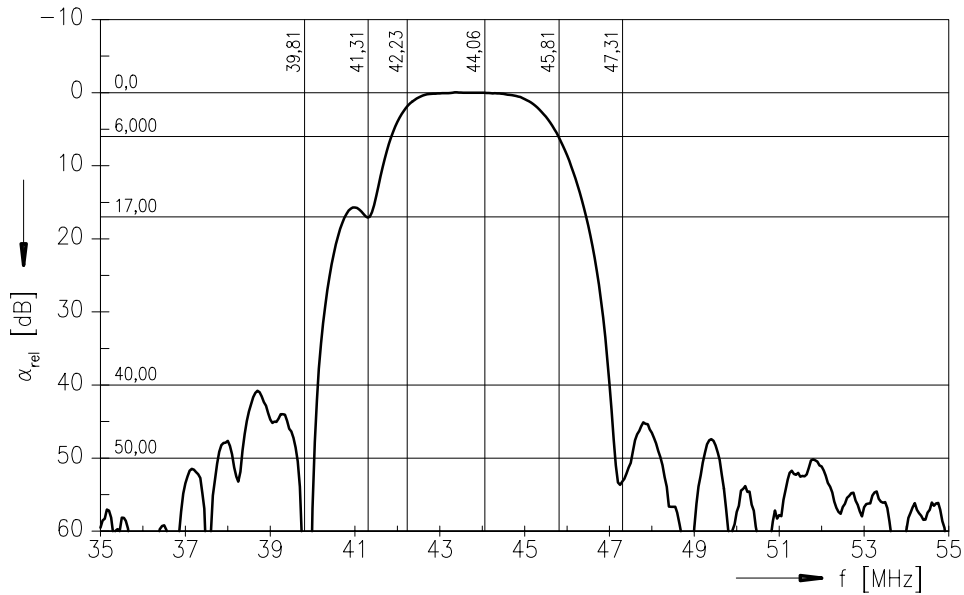
Reference temperature: $T_A = 25 (45) \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

| | | min. | typ. | max. | |
|--|---------------------------------------|------|----------------------|------|---------------------------|
| Insertion attenuation | α | | | | |
| Reference level for the following data | 44,06 (44,00) MHz | 10,8 | 12,3 | 13,8 | dB |
| Relative attenuation | α_{rel} | | | | |
| Picture carrier | 45,81 (45,75) MHz | 5,3 | 6,0 | 6,7 | dB |
| Color carrier | 42,23 (42,17) MHz | 1,0 | 2,0 | 3,0 | dB |
| Sound carrier | 41,31 (41,25) MHz | 15,6 | 17,1 | 18,6 | dB |
| Adjacent picture carrier | 39,81 (39,75) MHz | 46,5 | 60,0 | — | dB |
| Adjacent sound carrier | 47,31 (47,25) MHz | 46,5 | 55,0 | — | dB |
| Lower sidelobe | 35,06 ... 39,81 (35,00 ... 39,75) MHz | 36,5 | 41,0 | — | dB |
| Upper sidelobe | 47,31 ... 55,06 (47,25 ... 55,00) MHz | 38,5 | 44,0 | — | dB |
| Reflected wave signal suppression | | | | | |
| 1,1 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz) | | 42,0 | 52,0 | — | dB |
| Feedthrough signal suppression | | | | | |
| 1,0 μs ... 0,9 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz) | | 50,0 | 56,0 | — | dB |
| Group delay ripple (p-p) | $\Delta\tau$ | — | 40 | — | ns |
| Impedance at 44,06 MHz | | | | | |
| Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | | — | 1,5 \parallel 10,6 | — | k Ω \parallel pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | | — | 1,0 \parallel 3,6 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | TC_f | — | -72 | — | ppm/K |



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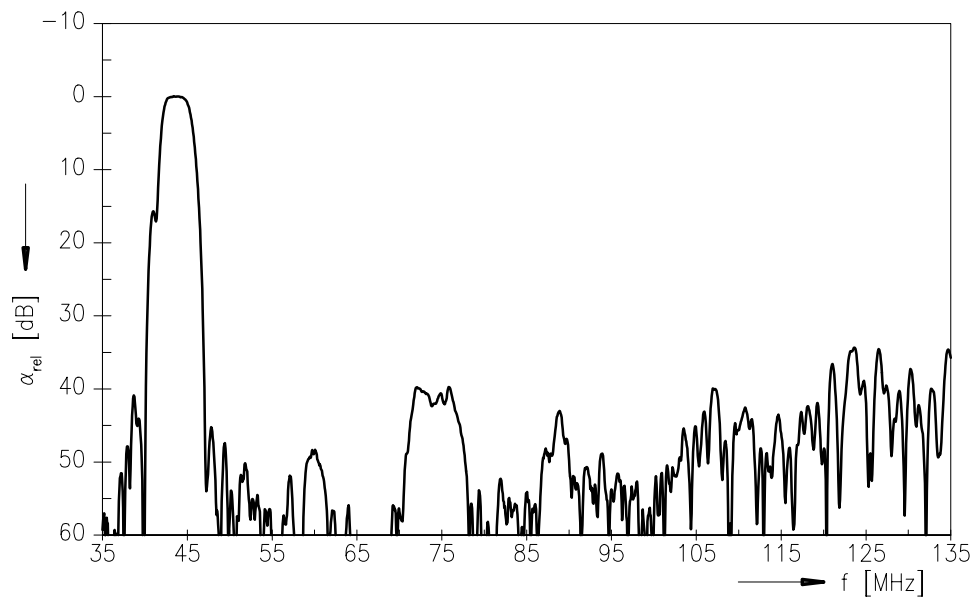
Frequency response



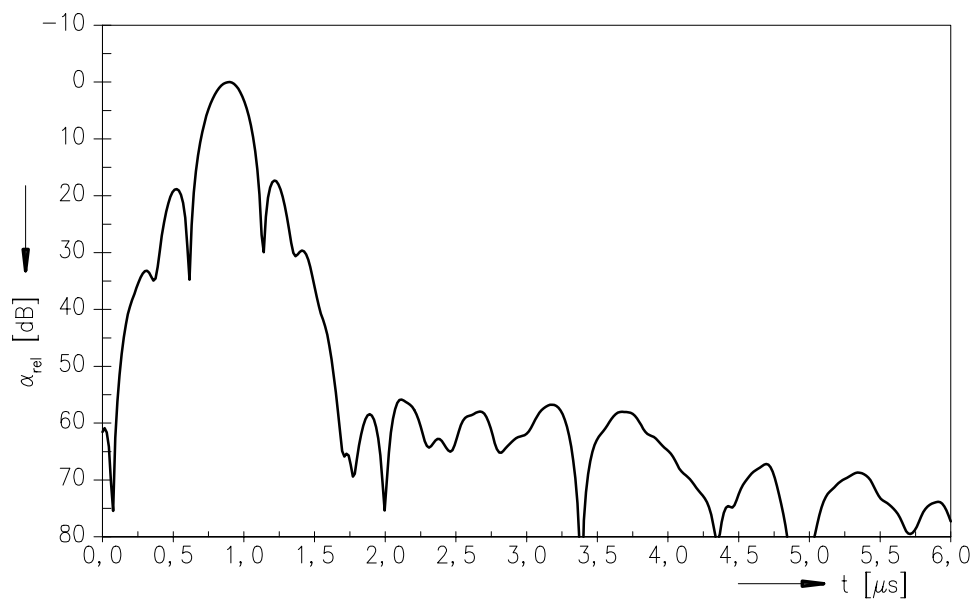


Data Sheet

Frequency response



Time domain response





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