



SAW Components

Data Sheet X 6966 M





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X 6966 M

Bandpass Filter

36,125 MHz

Data Sheet

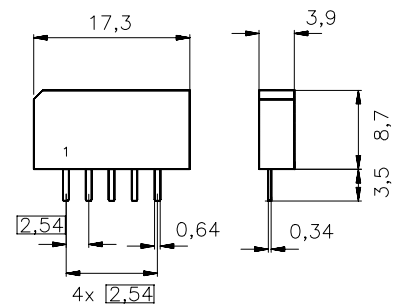
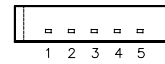
Plastic package **SIP5K**

Features

- IF filter for digital cable TV

Terminals

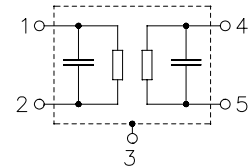
- Tinned CuFe alloy



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 |
|----------|-------------------|----------------------------------|----------------------|
| X 6966 M | B39361-X6966-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} | 12 | V | between any terminals |
| AC voltage | V_{pp} | 10 | V | between any terminals |



| | |
|------------------------|-------------------|
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Characteristics

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 | 36,125 MHz | 18,8 | 20,3 | 21,8 | dB |
| Amplitude ripple | | | | | |
| | $\Delta\alpha$ | | | | |
| | 32,65 ... 39,60 MHz | 0,0 | 0,5 | 1,0 | dB |
| Pass bandwith | | | | | |
| $\alpha_{rel} \leq 1\text{ dB}$ | B_{1dB} | — | 7,5 | — | MHz |
| $\alpha_{rel} \leq 3\text{ dB}$ | B_{3dB} | — | 8,0 | — | MHz |
| $\alpha_{rel} \leq 30\text{ dB}$ | B_{30dB} | — | 9,4 | — | MHz |
| Relative attenuation | | | | | |
| | α_{rel} | | | | |
| | 32,32 MHz | -0,1 | 0,9 | 1,9 | dB |
| | 39,93 MHz | 0,4 | 1,4 | 2,4 | dB |
| | 32,13 MHz | 1,5 | 2,7 | 3,9 | dB |
| | 40,13 MHz | 2,3 | 3,5 | 4,7 | dB |
| | 31,25 MHz | 37,0 | 51,0 | — | dB |
| | 47,25 MHz | 45,0 | 60,0 | — | dB |
| Lower sidelobe | 25,00 ... 31,25 MHz | 35,0 | 41,0 | — | dB |
| Upper sidelobe | 40,90 ... 50,00 MHz | 32,0 | 39,0 | — | dB |
| Reflected wave signal suppression | | | | | |
| 1,0 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 36,125 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 36,125 MHz) | | 50,0 | 56,0 | — | dB |
| Group delay ripple (p-p) | | | | | |
| | $\Delta\tau$ | | | | |
| Aperture 62,5 kHz | 32,32 ... 39,93 MHz | — | 40 | — | ns |
| Impedance at 36,125 MHz | | | | | |
| Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | | — | 2,3 \parallel 14,7 | — | k Ω \parallel pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | | — | 2,4 \parallel 3,9 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | | | | | |
| | TC_f | — | -72 | — | ppm/K |



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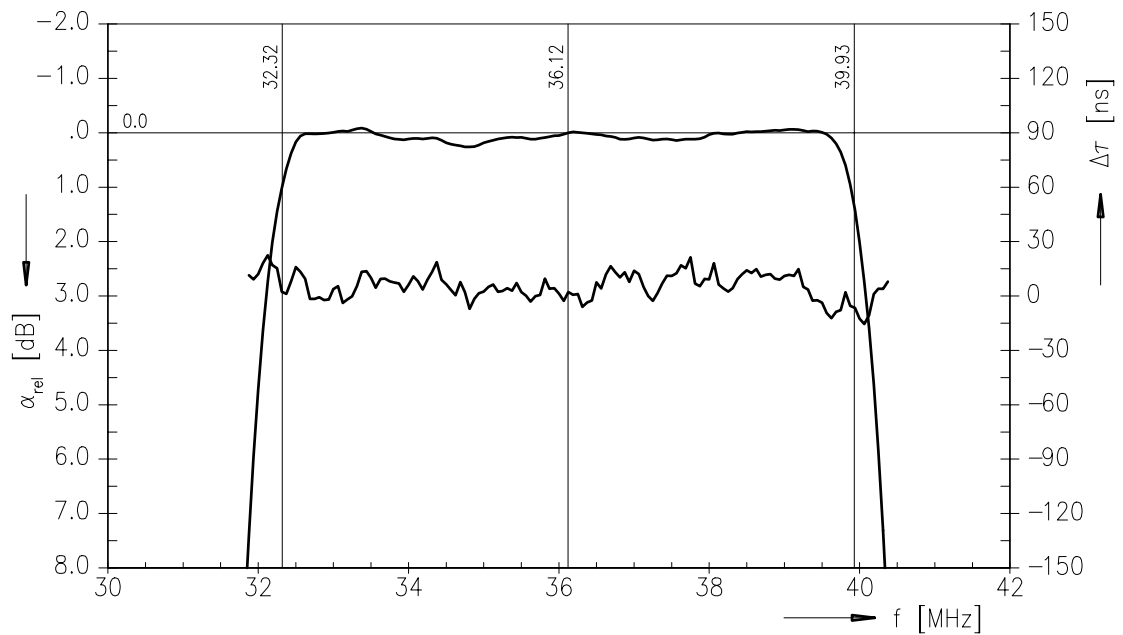
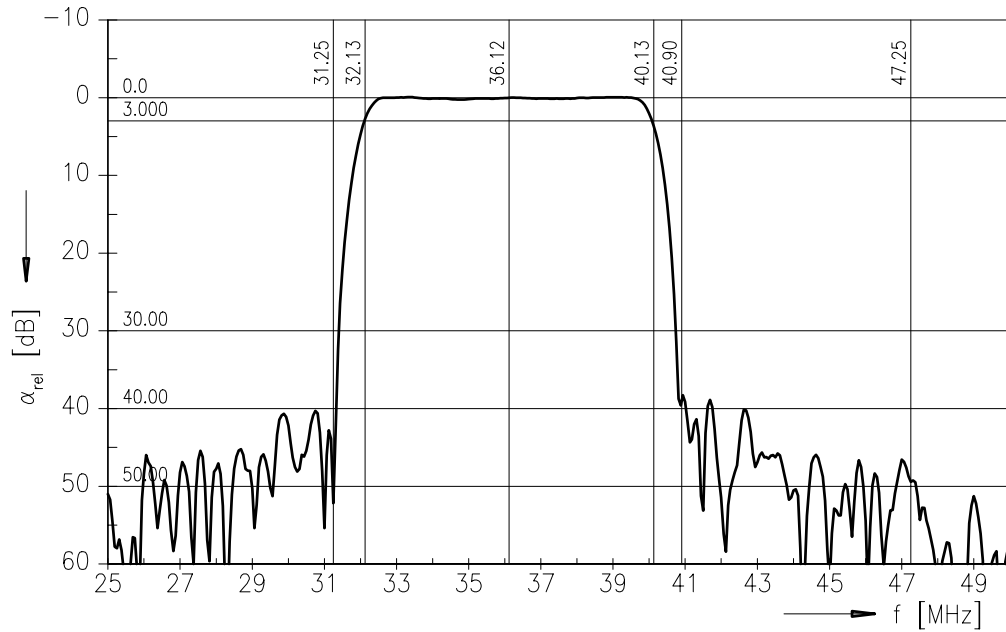
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Frequency response





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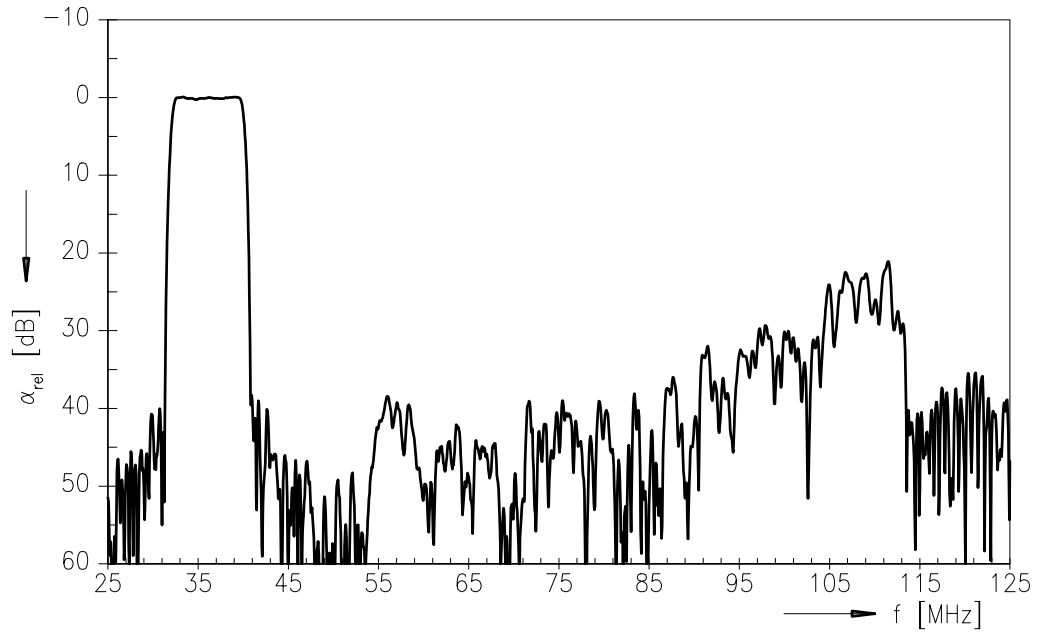
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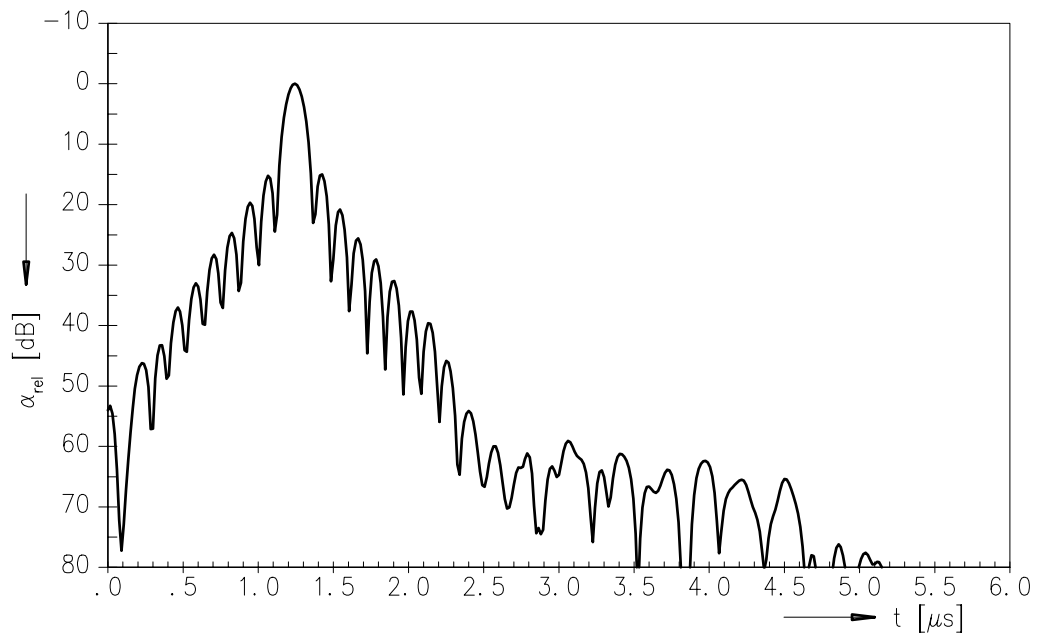
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Frequency response



Time domain response





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