



SAW Filters for Multimedia Applications

Series/Type: G3956M

The following products presented in this data sheet are being withdrawn.

| Ordering Code | Substitute Product | Date of Withdrawal | Deadline Last Orders | Last Shipments |
|-----------------|--------------------|--------------------------------------|----------------------|----------------|
| B39389G3956M100 | | 2010- Feb 2010 | 2011-03-30 | 2011-06-30 |

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

SAW Components
G 3956 M
IF Filter for Video Applications
38,90 MHz
Data Sheet
Standard

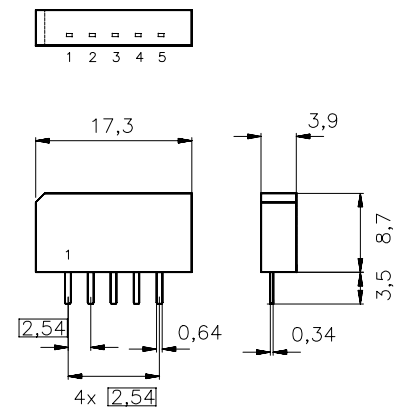
- B/G

Features

- TV IF filter with Nyquist slope and sound suppression
- High color carrier level
- Reduced group delay predistortion as compared with standard B/G, half
- Suitable for CENELEC EN 55020

Terminals

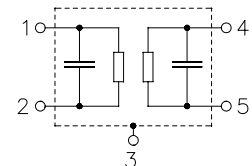
- Tinned CuFe alloy

 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 |
|----------|-------------------|----------------------------------|----------------------|
| G 3956 M | B39389-G3956-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 |

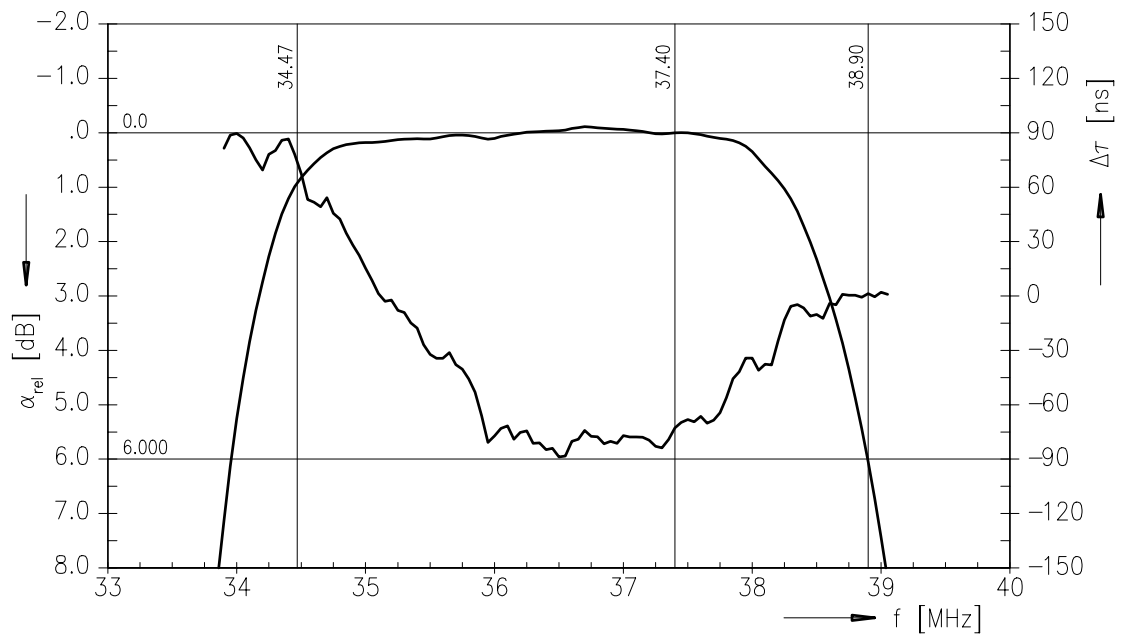
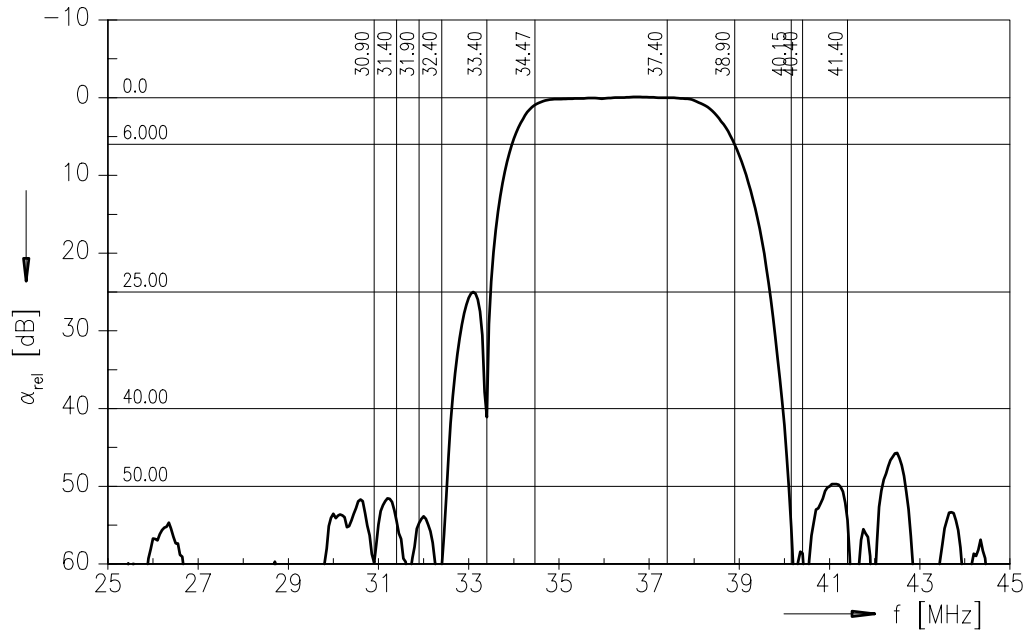
SAW Components
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38,90 MHz
Data Sheet
Characteristics

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 | 37,40 MHz | 12,2 | 13,7 | 15,2 | dB |
| Relative attenuation | | | | | |
| | α_{rel} | | | | |
| Picture carrier | 38,90 MHz | 5,1 | 6,1 | 7,1 | dB |
| Color carrier | 34,47 MHz | 0,0 | 1,0 | 2,0 | dB |
| Sound carrier | 33,40 MHz | 26,0 | 39,0 | — | dB |
| | 33,15 MHz | — | 25,0 | — | dB |
| | 33,90 MHz | — | 7,0 | — | dB |
| Adjacent picture carrier UHF | 30,90 MHz | 48,0 | 58,0 | — | dB |
| | VHF | | | | |
| | 31,90 MHz | 48,0 | 56,0 | — | dB |
| | 31,40 MHz | 44,0 | 52,0 | — | dB |
| Adjacent sound carrier VHF | 32,40 MHz | 48,0 | 60,0 | — | dB |
| | 40,15 MHz | 42,0 | 51,0 | — | dB |
| | 40,40 MHz | 45,0 | 57,0 | — | dB |
| | UHF | | | | |
| 41,40 MHz | 44,0 | 57,0 | — | dB | |
| Lower sidelobe | 25,00 ... 31,90 MHz | 42,0 | 49,0 | — | dB |
| Upper sidelobe | 40,40 ... 45,00 MHz | 40,0 | 46,0 | — | dB |
| Reflected wave signal suppression | | | | | |
| 1,3 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 ... 1,0 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) | | 50,0 | 56,0 | — | dB |
| Group delay predistortion | | | | | |
| (reference frequency 38,90 MHz) | | | | | |
| | $\Delta\tau$ | | | | |
| | 36,90 MHz | — | -85 | — | ns |
| | 34,47 MHz | — | 70 | — | ns |
| Impedance at 37,40 MHz | | | | | |
| Input: | $Z_{IN} = R_{IN} \parallel C_{IN}$ | — | 1,3 \parallel 16,6 | — | k Ω \parallel pF |
| Output: | $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | — | 1,4 \parallel 4,5 | — | k Ω \parallel pF |
| Temperature coefficient of frequency | | | | | |
| | TC_f | — | -72 | — | ppm/K |

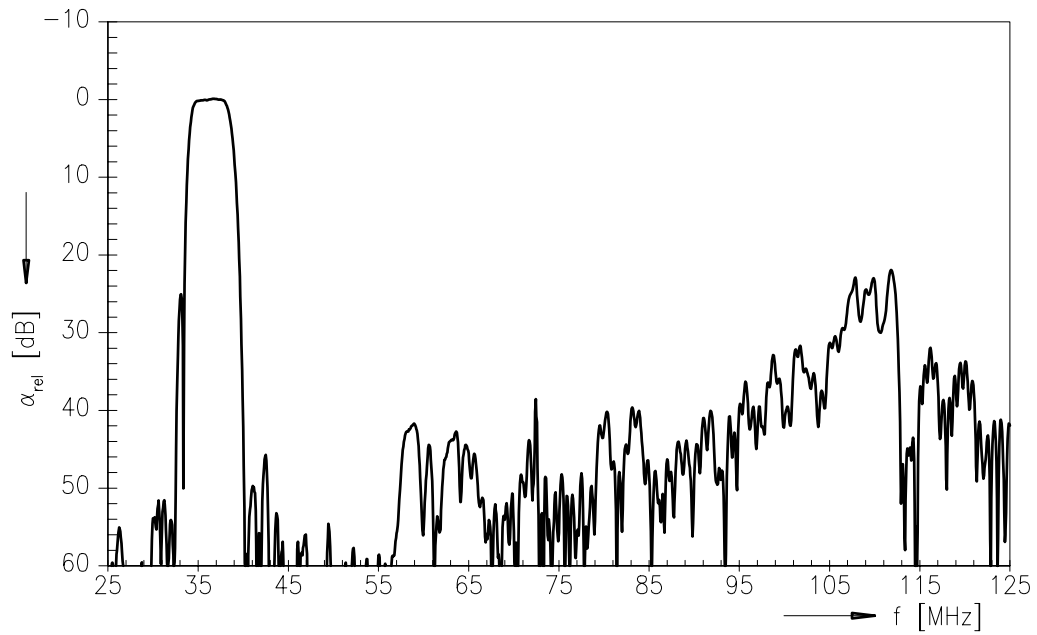
Data Sheet

Frequency response

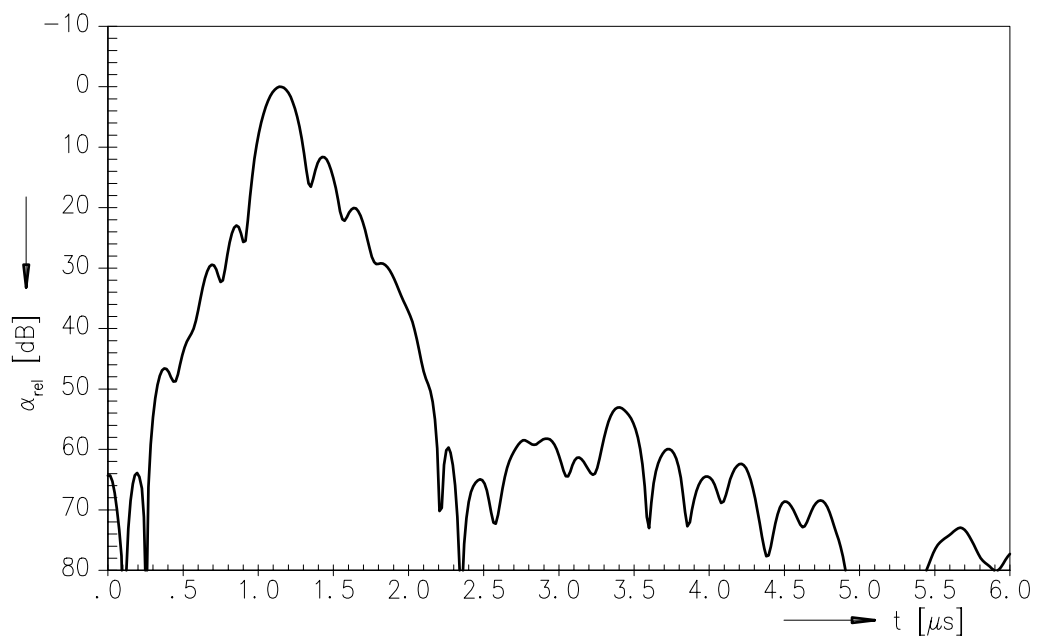


Data Sheet

Frequency response



Time domain response



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