



SAW Components

Data Sheet G 3963 M

Data Sheet

An abstract graphic with the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow. In the background, there is a faint world map and a stylized globe with curved lines.



SAW Components

G 3963 M

IF Filter for Video Applications

38,90 MHz

Data Sheet

Standard

Plastic package **SIP5K**

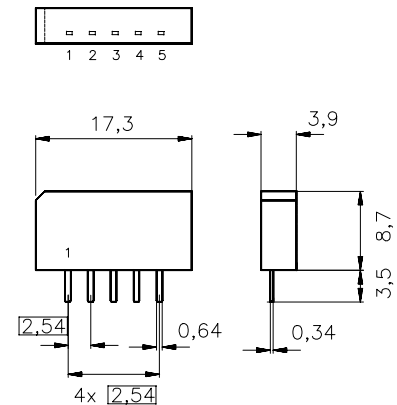
- B/G

Features

- TV IF filter with Nyquist slope and sound suppression
- Constant group delay
- Suitable for CENELEC EN 55020

Terminals

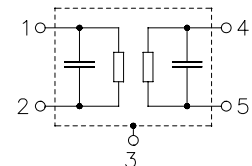
- Tinned CuFe alloy



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
G 3963 M	B39389-G3963-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: $T_A = 25\text{ °C}$
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		13,0	14,5	16,0	dB
Relative attenuation		α_{rel}				
Picture carrier	38,90 MHz		4,6	5,6	6,6	dB
Color carrier	34,47 MHz		1,7	2,7	3,7	dB
Sound carrier	33,40 MHz		42,0	56,0	—	dB
	32,40 MHz		46,0	56,0	—	dB
Adjacent picture carrier	UHF 30,90 MHz		46,0	58,0	—	dB
	VHF 31,90 MHz		46,0	57,0	—	dB
	40,15 MHz		38,0	45,0	—	dB
Adjacent sound carrier	VHF 40,40 MHz		45,0	55,0	—	dB
	UHF 41,40 MHz		44,0	51,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz		42,0	47,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz		38,0	43,0	—	dB
Reflected wave signal suppression						
1,1 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			44,0	54,0	—	dB
Feedthrough signal suppression						
1,2 μ s ... 1,05 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			50,0	56,0	—	dB
Group delay ripple (p-p)		$\Delta\tau$	—	50	—	ns
Impedance at 37,40 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	1,7 $\parallel$ 14,1	—	k Ω $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	1,3 $\parallel$ 5,5	—	k Ω $\parallel$ pF
Temperature coefficient of frequency		TC_f	—	-72	—	ppm/K



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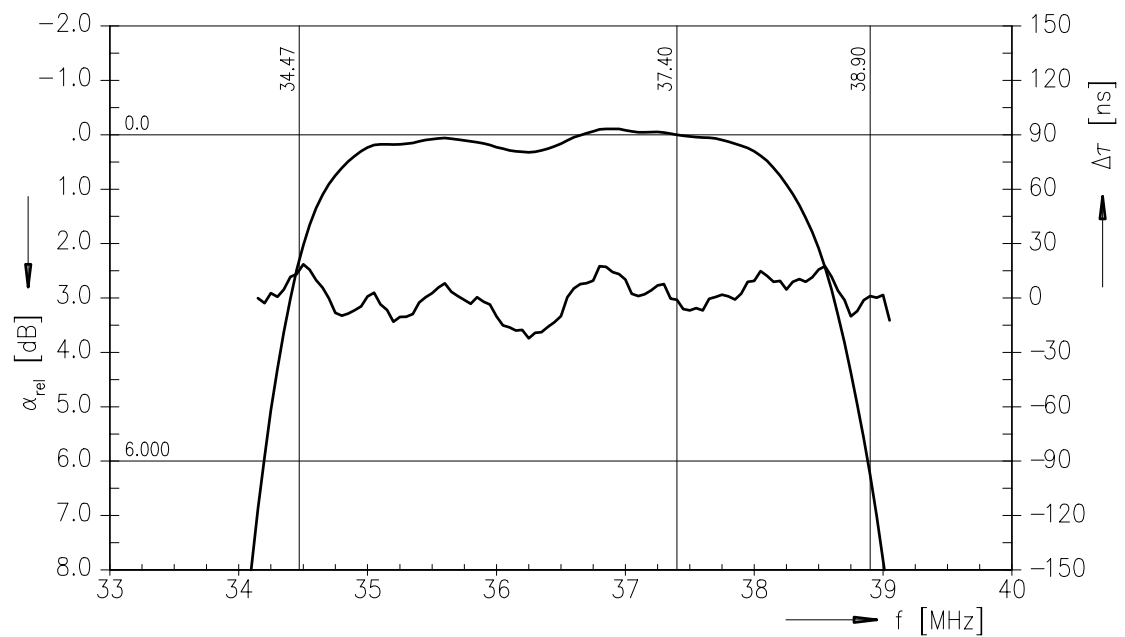
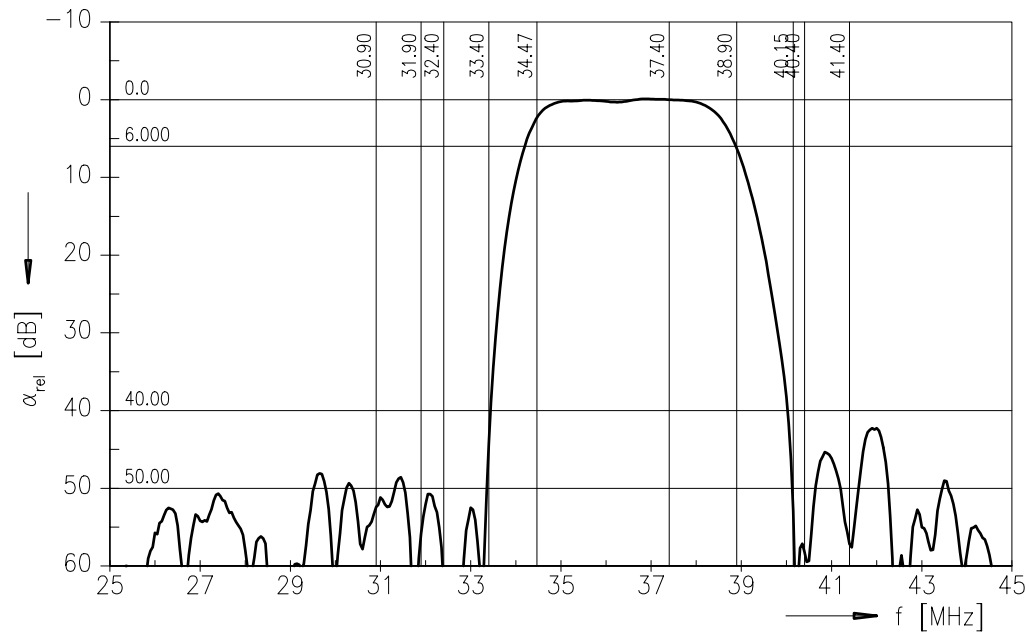
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Frequency response





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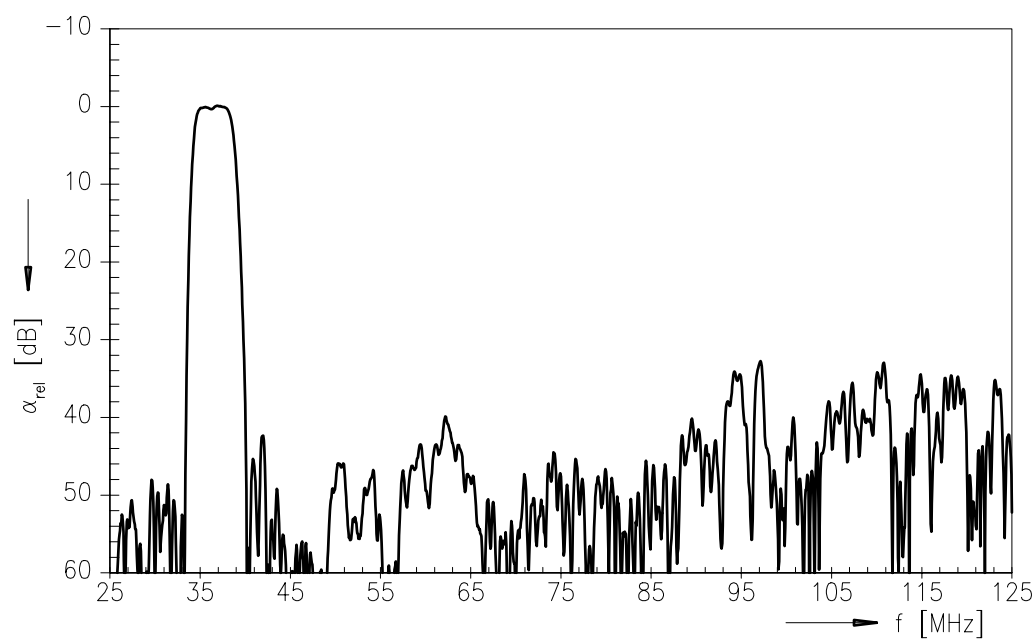
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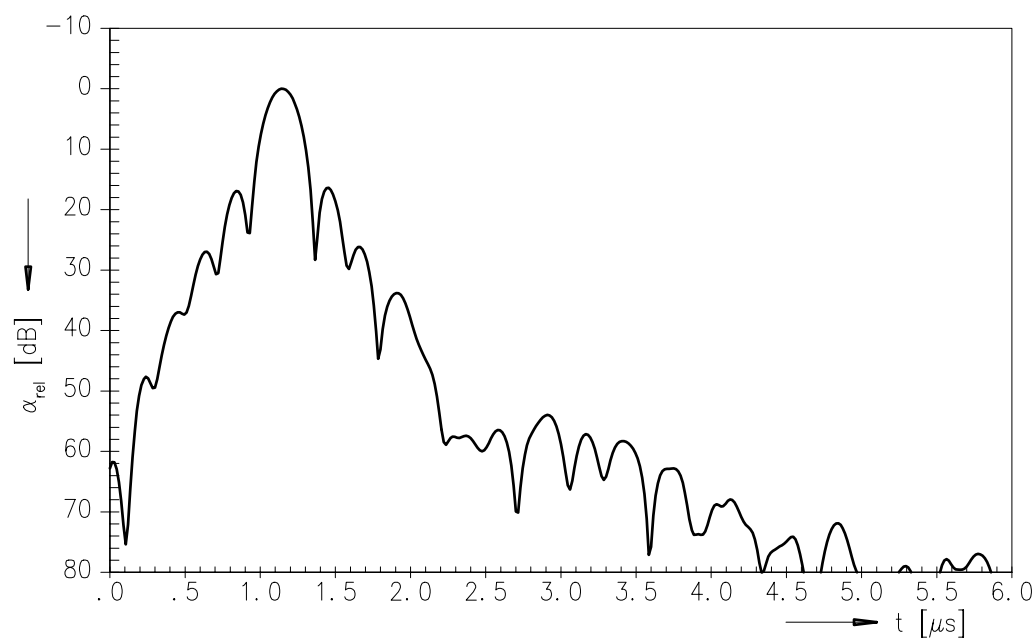
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Frequency response



Time domain response





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