



SAW Components

Data Sheet K 3953 M

Data Sheet

A large, stylized, 3D-rendered graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are tilted and appear to be floating or emerging from a dark, swirling, smoke-like background. The overall effect is dynamic and modern.



SAW Components

K 3953 M

IF Filter for Video Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

- B/G
- D/K
- I
- L/L'

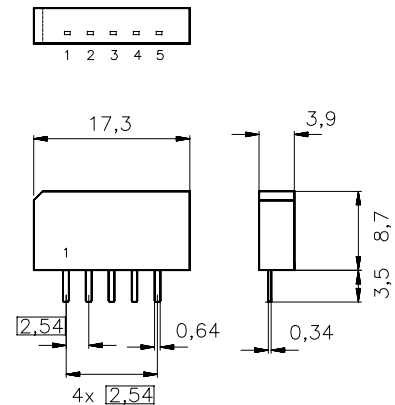
Plastic package **SIP5K**

Features

- TV IF filter with Nyquist slopes at 33,90 MHz and 38,90 MHz
- Constant group delay
- Suitable for CENELEC EN 55020

Terminals

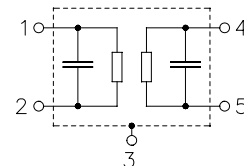
- Tinned CuFe alloy



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
K 3953 M	B39389-K3953-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	12,0	13,5	15,0	dB
Relative attenuation α_{rel}					
Picture carrier	38,90 MHz	5,0	6,0	7,0	dB
	33,90 MHz	6,3	7,5	8,7	dB
Color carrier	34,47 MHz	—	1,3	—	dB
Sound carrier	33,40 MHz	20,0	24,0	—	dB
	32,90 MHz	—	54,0	—	dB
	32,40 MHz	—	63,0	—	dB
Adjacent picture carrier	30,90 MHz	48,0	62,0	—	dB
	31,90 MHz	48,0	59,0	—	dB
	40,15 MHz	36,0	40,0	—	dB
Adjacent sound carrier	40,40 MHz	48,0	59,0	—	dB
	41,40 MHz	46,0	60,0	—	dB
	40,90 MHz	46,0	59,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	45,0	52,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	38,0	44,0	—	dB
Reflected wave signal suppression					
1,2 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	50,0	—	dB
Feedthrough signal suppression					
1,2 μ s ... 1,1 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: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,4 \parallel 16,9	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 \parallel 4,7	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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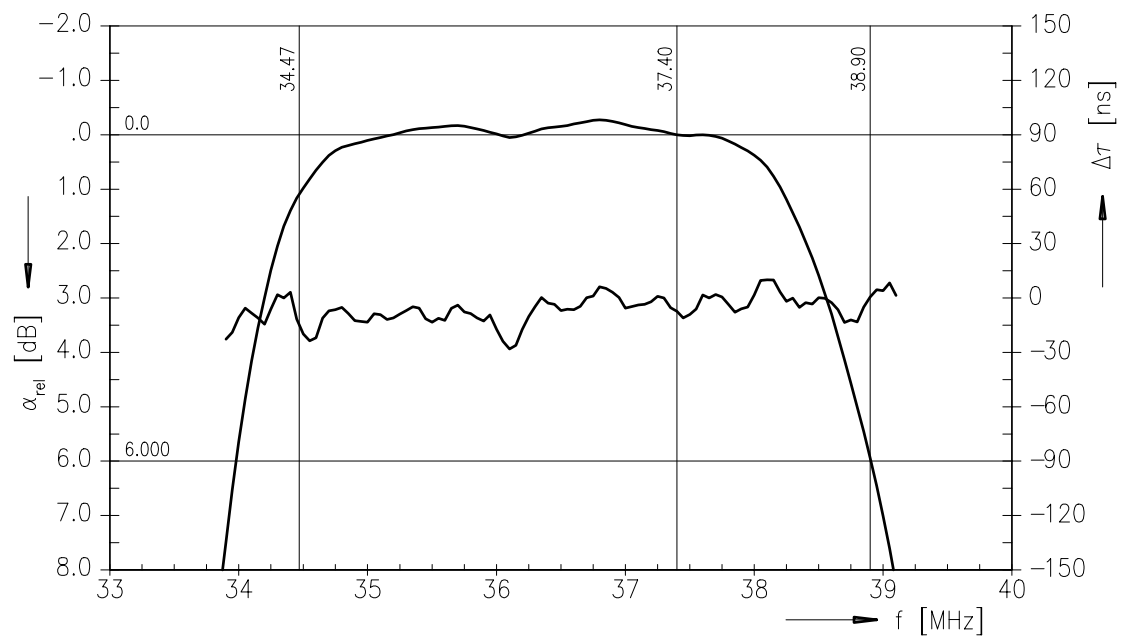
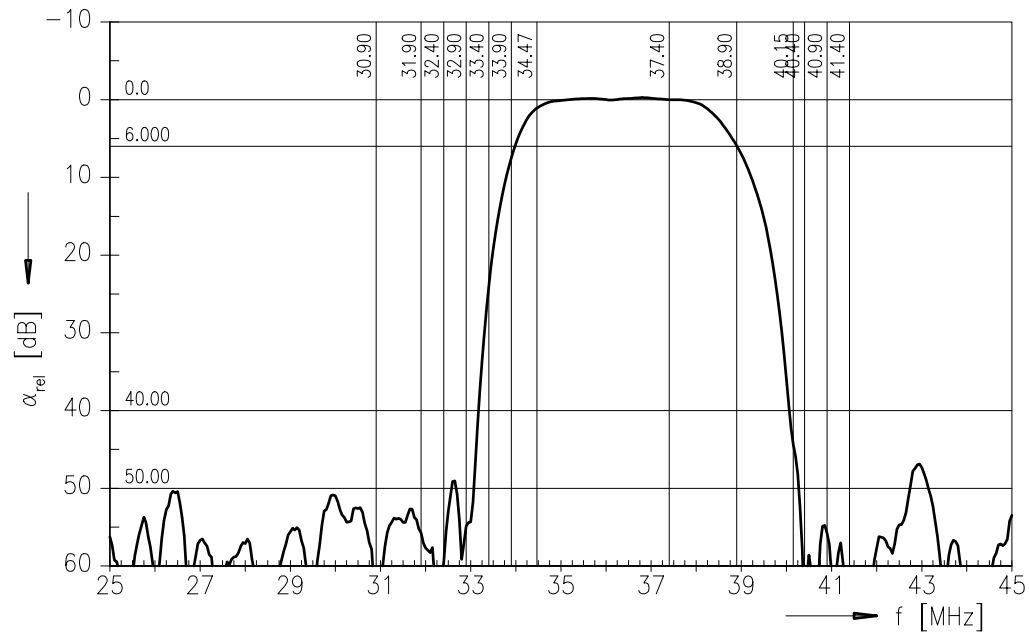
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Frequency response





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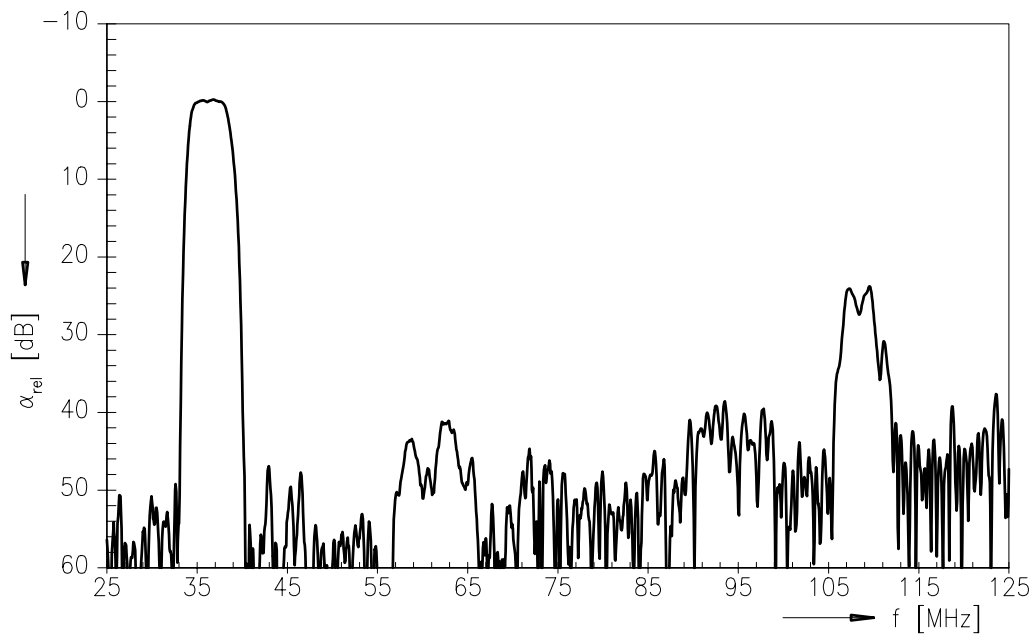
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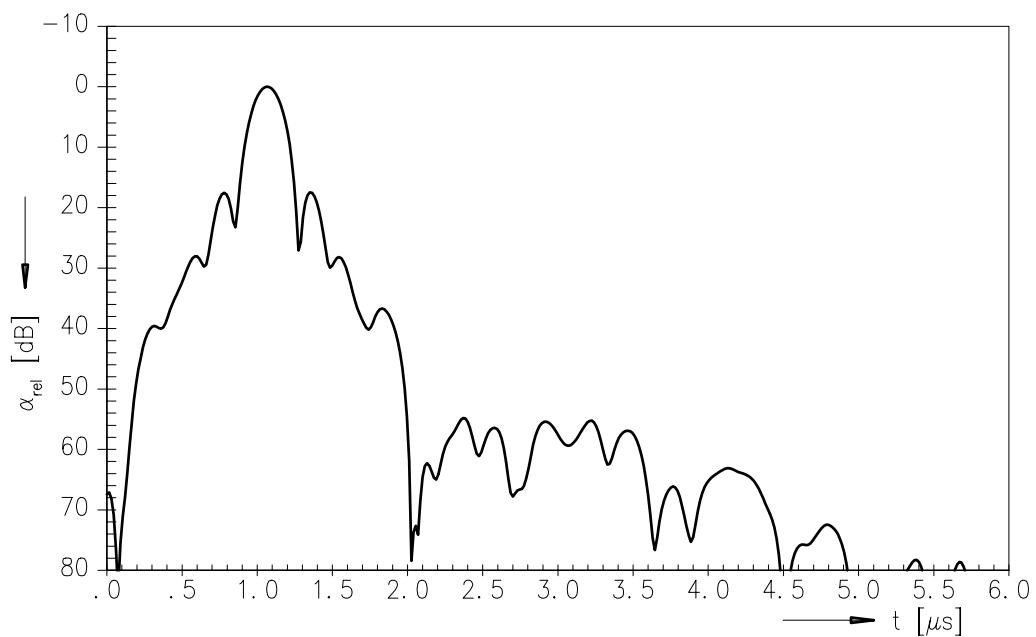
33,90 MHz and 38,90 MHz

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Frequency response



Time domain response





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