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# *SAW Components*

*Data Sheet K 2971 M*

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The word "EPCOS" is written in a bold, sans-serif font, with the letters appearing to be part of a curved, metallic surface. The background is dark and textured, suggesting a technical or industrial theme.



**SAW Components**

**K 2971 M**

**IF Filter for Intercarrier Applications**

**38,90 MHz**

**Data Sheet**

**Standard**

- B/G
- D/K

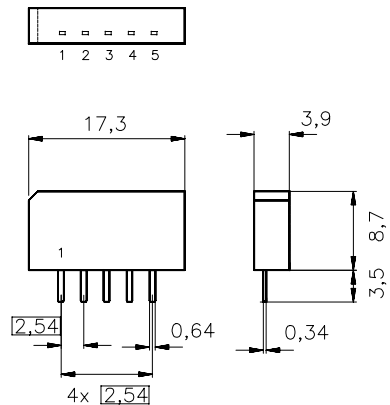
Plastic package **SIP5K**

**Features**

- TV IF filter with Nyquist slope and sound shelf
- Broad sound shelf for sound carriers at 32,40 MHz and 33,40 MHz
- Group delay predistortion

**Terminals**

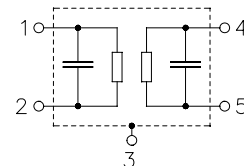
- Tinned CuFe alloy



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 2971 M	B39389-K2971-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**

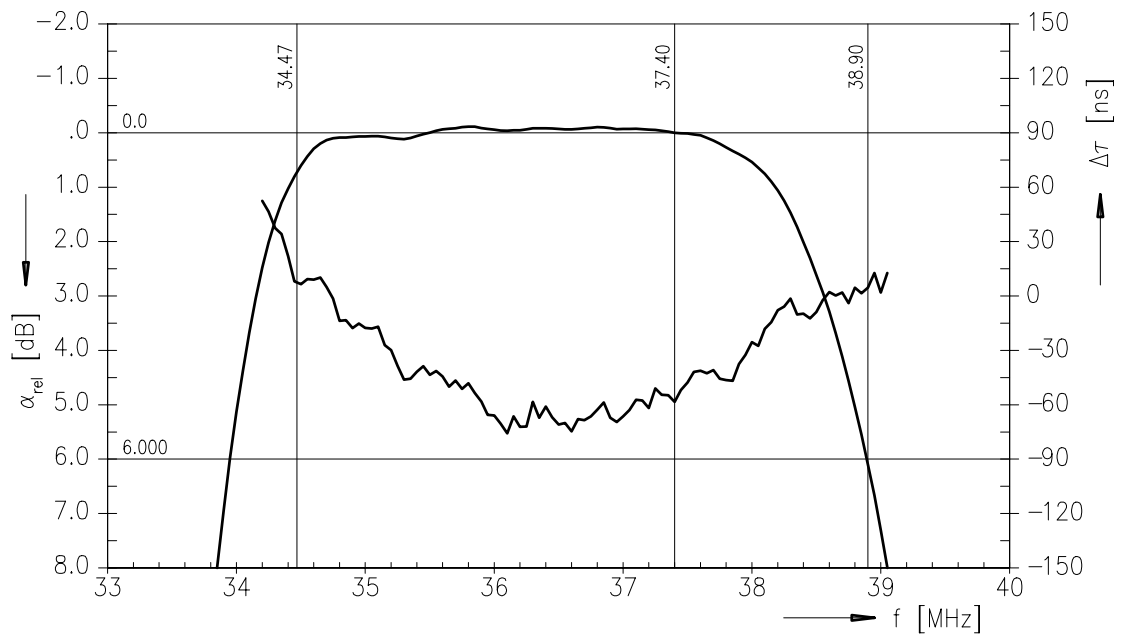
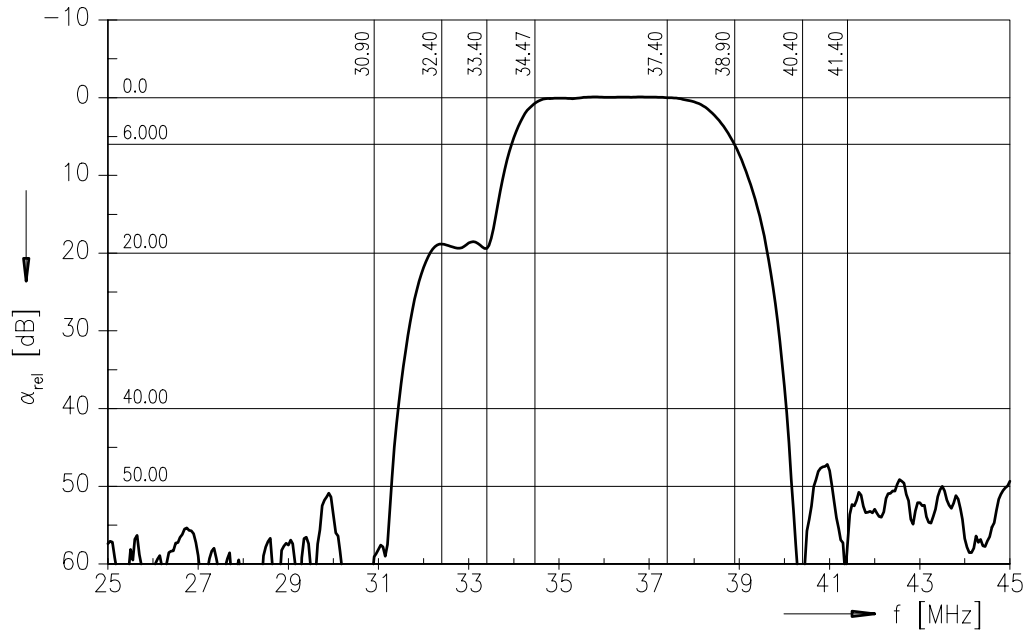
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	37,40 MHz	14,8	16,3	17,8	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
Picture carrier	38,90 MHz	4,8	5,8	6,8	dB
Color carrier	34,47 MHz	-0,3	0,7	1,7	dB
Sound carrier	32,40 MHz	17,1	18,6	20,1	dB
	33,40 MHz	17,7	19,2	—	dB
Adjacent picture carrier	30,90 MHz	46,0	56,0	—	dB
Adjacent sound carrier	40,40 MHz	43,0	52,0	—	dB
	41,40 MHz	42,0	51,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	44,0	51,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	40,0	46,0	—	dB
<b>Reflected wave signal suppression</b>					
1,2 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	53,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu$ s ... 1,1 $\mu$ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
<b>Group delay predistortion</b>					
(reference frequency 38,90 MHz)					
	$\Delta\tau$				
	36,50 MHz	—	-70	—	ns
	34,47 MHz	—	20	—	ns
<b>Impedance at 37,40 MHz</b>					
	Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	2,0 $\parallel$ 12,1	—	k $\Omega$ $\parallel$ pF
	Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	3,0 $\parallel$ 2,8	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response





SAW Components

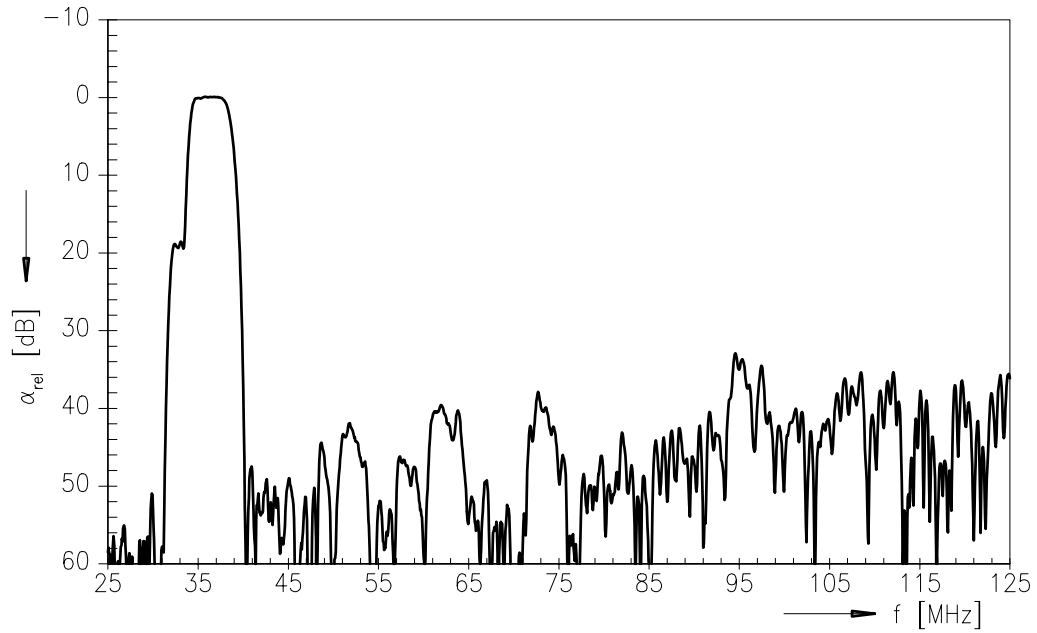
K 2971 M

IF Filter for Intercarrier Applications

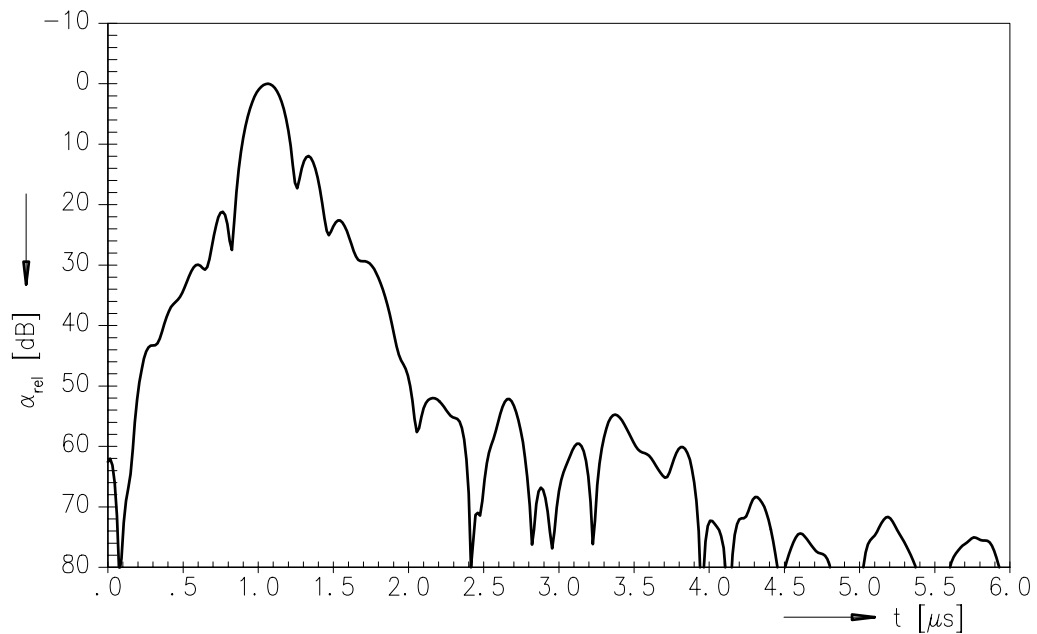
38,90 MHz

Data Sheet

Frequency response



Time domain response





**SAW Components**

**K 2971 M**

**IF Filter for Intercarrier Applications**

**38,90 MHz**

**Data Sheet**

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