



SAW Components

Data Sheet K 2971 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 2971 M

IF Filter for Intercarrier Applications

38,90 MHz

Data Sheet

Standard

- B/G
- D/K

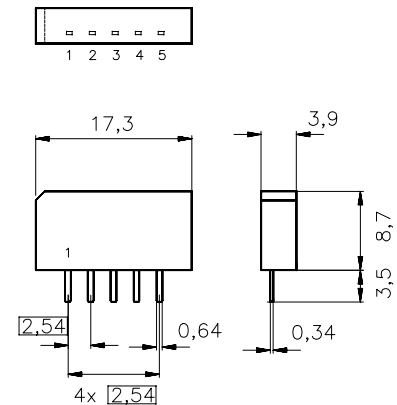
Plastic package **SIP5K**

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

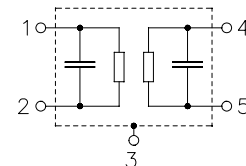
- Tinned CuFe alloy



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



SAW Components

K 2971 M

IF Filter for Intercarrier Applications

38,90 MHz

Data Sheet

Characteristics

Reference temperature: $T_A = 25\text{ °C}$
Terminating source impedance: $Z_S = 50\text{ }\Omega$
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	14,8	16,3	17,8	dB
Relative attenuation α_{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
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	53,0	—	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 predistortion $\Delta\tau$					
(reference frequency 38,90 MHz)					
	36,50 MHz	—	-70	—	ns
	34,47 MHz	—	20	—	ns
Impedance at 37,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2,0 \parallel 12,1	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	3,0 \parallel 2,8	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	-72	—	ppm/K



SAW Components

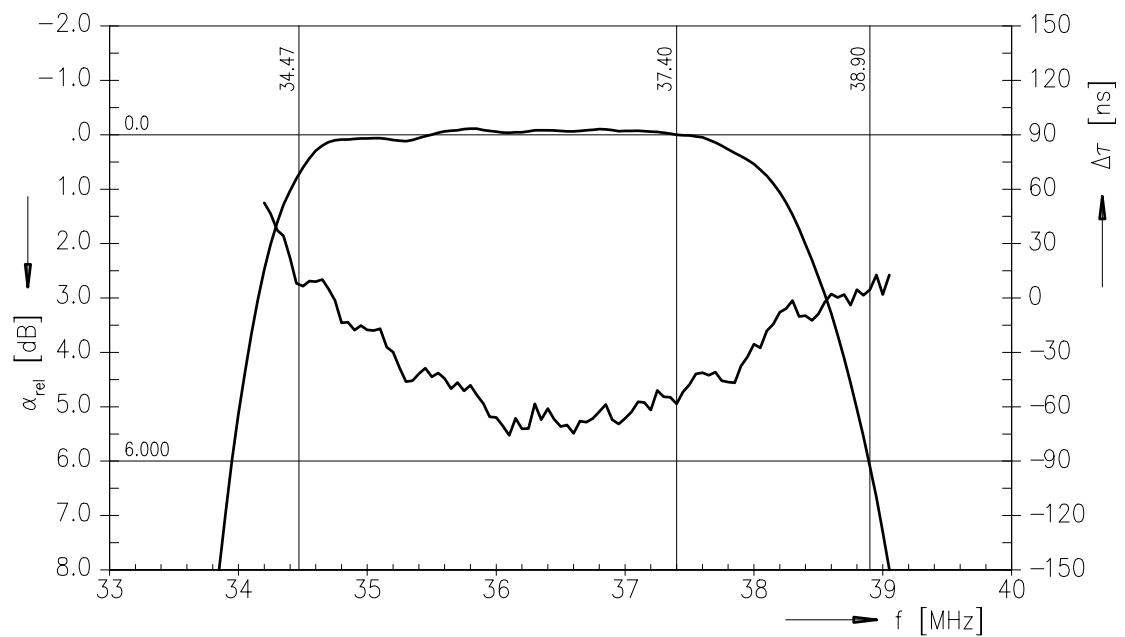
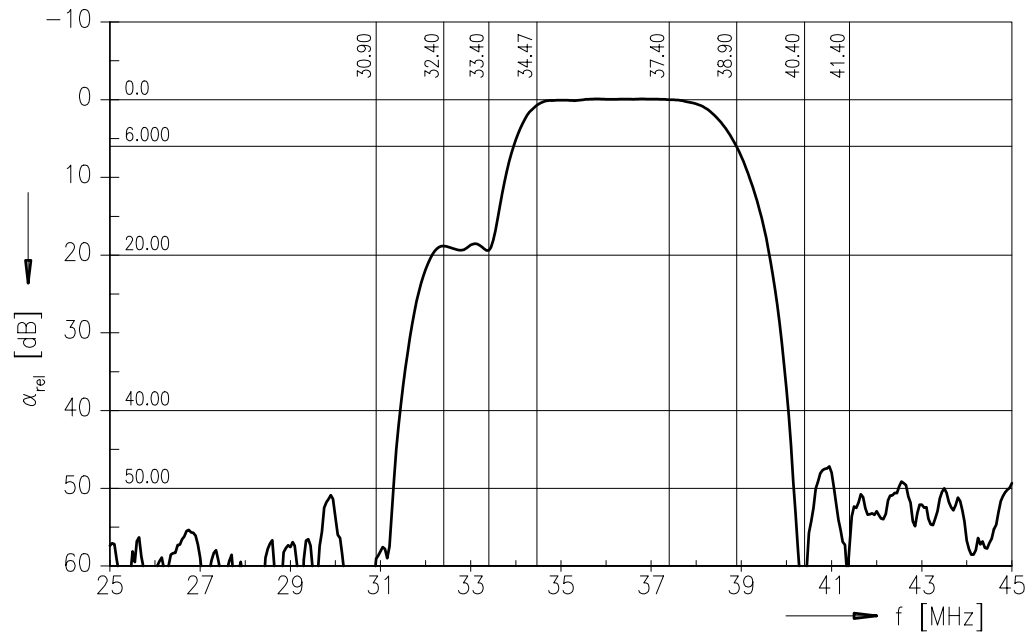
K 2971 M

IF Filter for Intercarrier Applications

38,90 MHz

Data Sheet

Frequency response





SAW Components

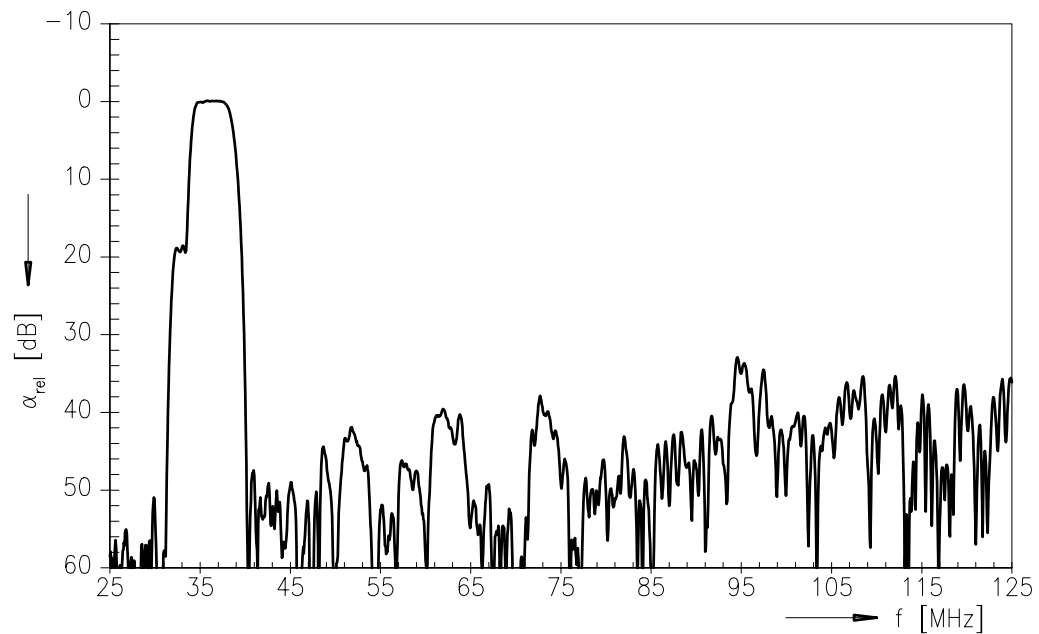
K 2971 M

IF Filter for Intercarrier Applications

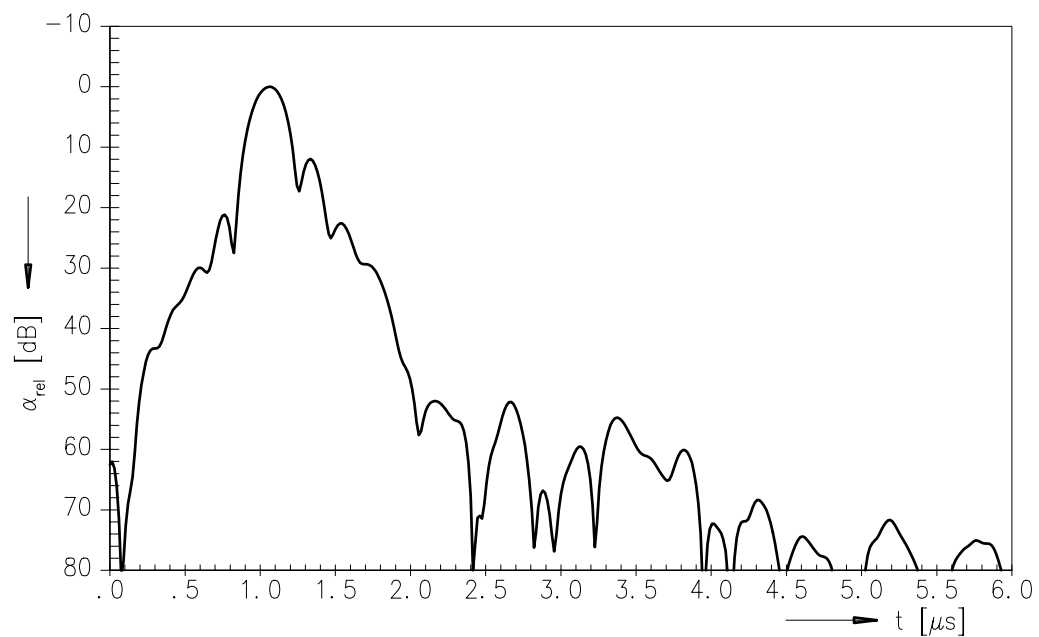
38,90 MHz

Data Sheet

Frequency response



Time domain response





SAW Components	K 2971 M
IF Filter for Intercarrier Applications	38,90 MHz

Data Sheet

Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, D-81617 München

© EPCOS AG 2001. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.