



SAW Components

Data Sheet K 2971 M

Data Sheet

EPCOS



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IF Filter for Intercarrier Applications

38,90 MHz

Data Sheet

Standard

- B/G
- D/K

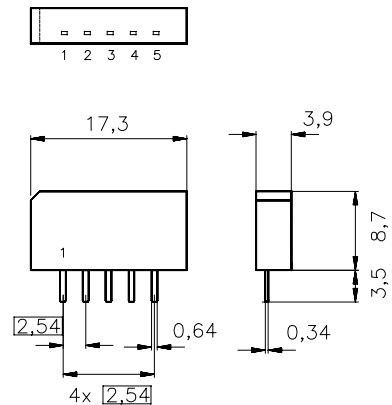
Plastic package **SIP5K**

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

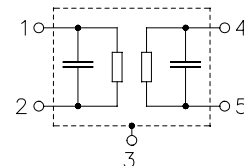
- Tinned CuFe alloy



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}	12	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: $Z_S = 50\text{ }\Omega$
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



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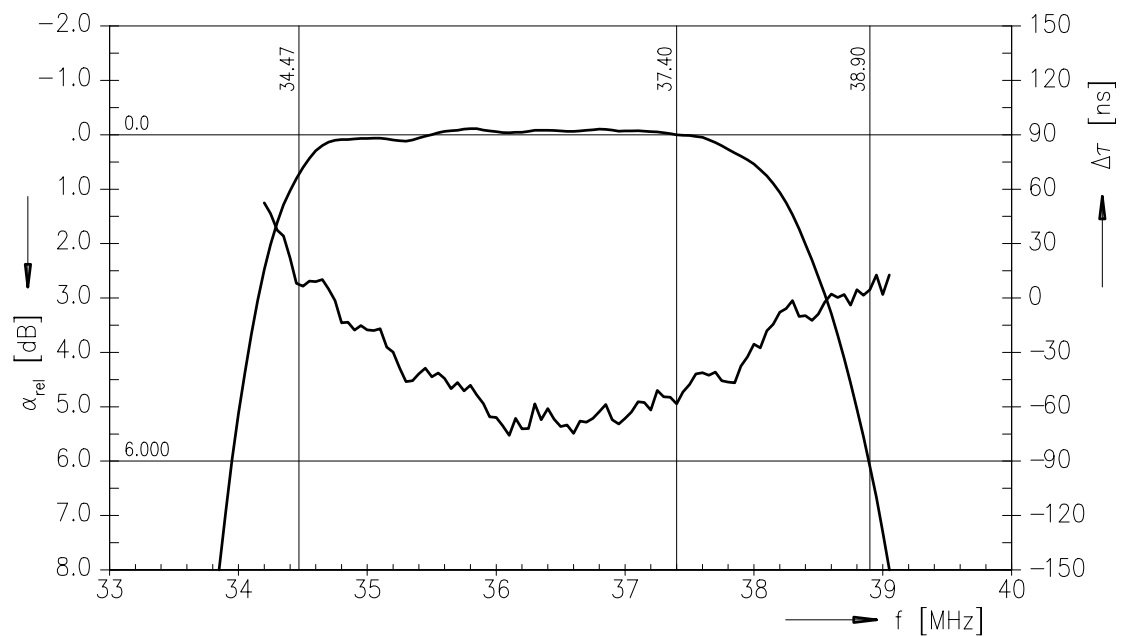
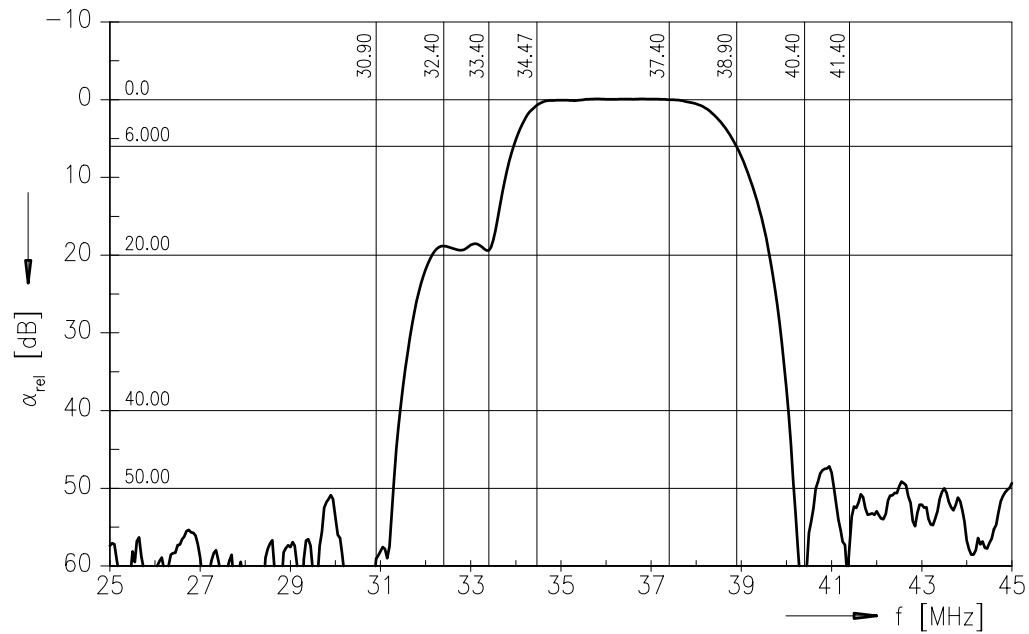
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Frequency response





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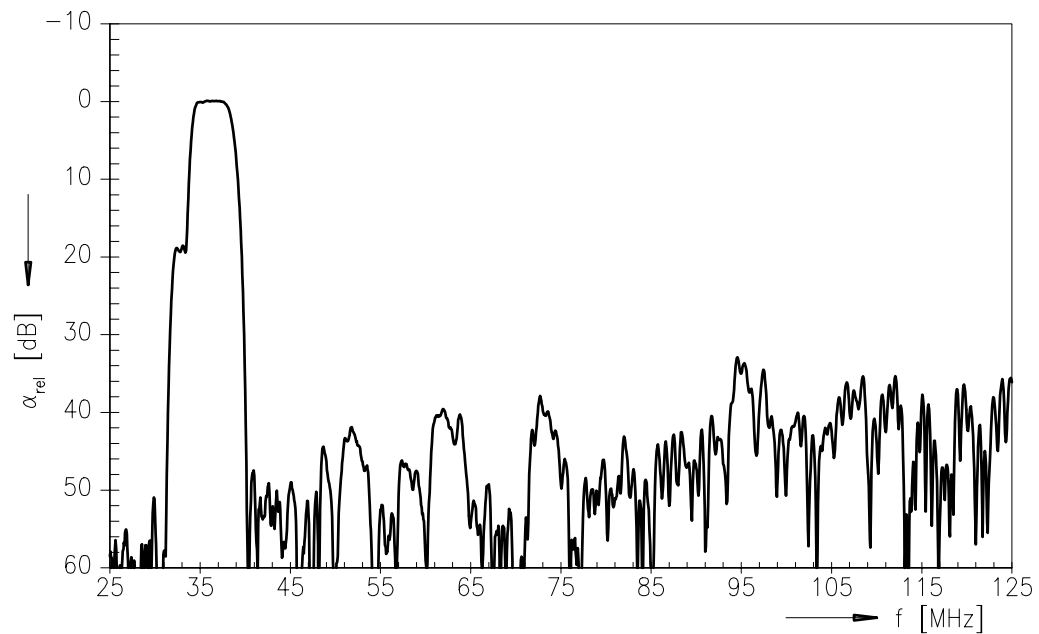
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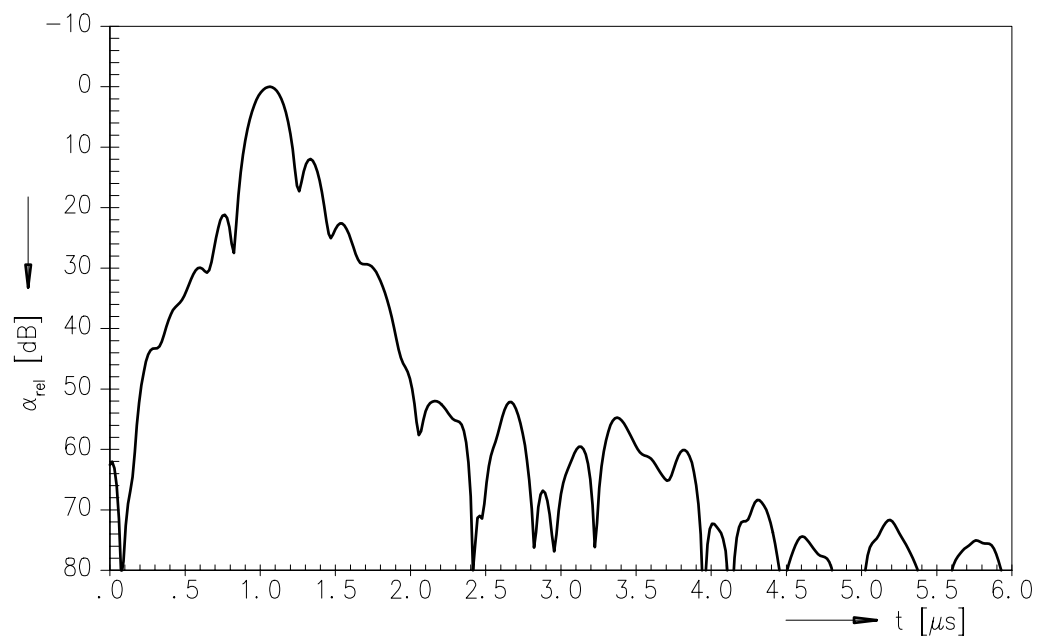
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Frequency response



Time domain response





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