



SAW Components

Data Sheet X 6964 M

Data Sheet

A large, stylized EPCOS logo is overlaid on a grayscale image of a circuit board. The logo is white and semi-transparent, allowing the underlying circuitry to be visible. The word "EPCOS" is written in a large, bold, sans-serif font.



SAW Components

X 6964 M

Bandpass Filter

43,75 MHz

Data Sheet

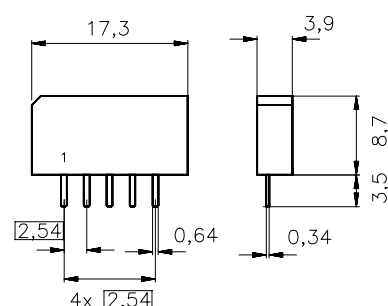
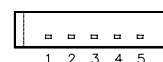
Plastic package **SIP5K**

Features

- IF filter for digital cable TV

Terminals

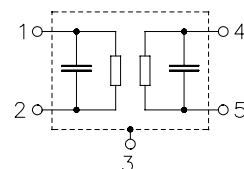
- Tinned CuFe alloy



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
X 6964 M	B39438-X6964-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:	$T_A = 25 (45) ^\circ\text{C}$
Terminating source impedance:	$Z_S = 50 \Omega$
Terminating load impedance:	$Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
Center frequency	f_C	—	43,75	—	MHz
(center between 3 dB points)					
Insertion attenuation	α				
Reference level for the	43,81 (43,75) MHz	13,3	14,8	16,3	dB
following data					
Pass bandwidth					
$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	—	6,0	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{30\text{dB}}$	—	7,6	—	MHz
Relative attenuation	α_{rel}				
41,28 (41,22) MHz		-0,8	0,2	1,2	dB
46,34 (46,28) MHz		-0,7	0,3	1,3	dB
40,81 (40,75) MHz		1,3	2,5	3,7	dB
46,81 (46,75) MHz		1,6	2,8	4,0	dB
40,31 (40,25) MHz		9,0	12,0	—	dB
47,31 (47,25) MHz		9,0	13,0	—	dB
39,81 (39,75) MHz		38,0	50,0	—	dB
47,81 (47,75) MHz		38,0	52,0	—	dB
Lower sidelobe					
35,06 ... 39,81 (35,00 ... 39,75) MHz		38,0	46,0	—	dB
Upper sidelobe					
47,81 ... 55,06 (47,75 ... 55,00) MHz		38,0	44,0	—	dB
Reflected wave signal suppression					
1,3 μs ... 6,0 μs after main pulse		42,0	52,0	—	dB
(test pulse 250 ns, carrier frequency 43,81 MHz)					
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse		50,0	56,0	—	dB
(test pulse 250 ns, carrier frequency 43,81 MHz)					
Group delay ripple (p-p)	$\Delta\tau$				
Aperture 50 kHz					
40,81 ... 46,81 (40,75 ... 46,75) MHz		—	40	—	ns
Impedance at 43,81 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,1 \parallel 16,4	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,1 \parallel 5,0	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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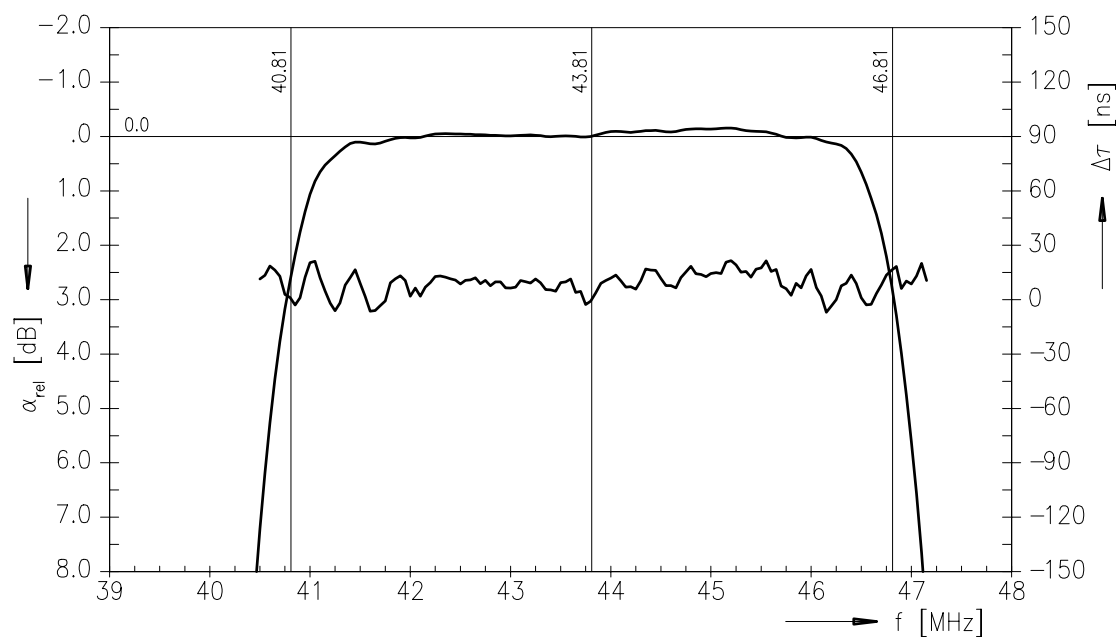
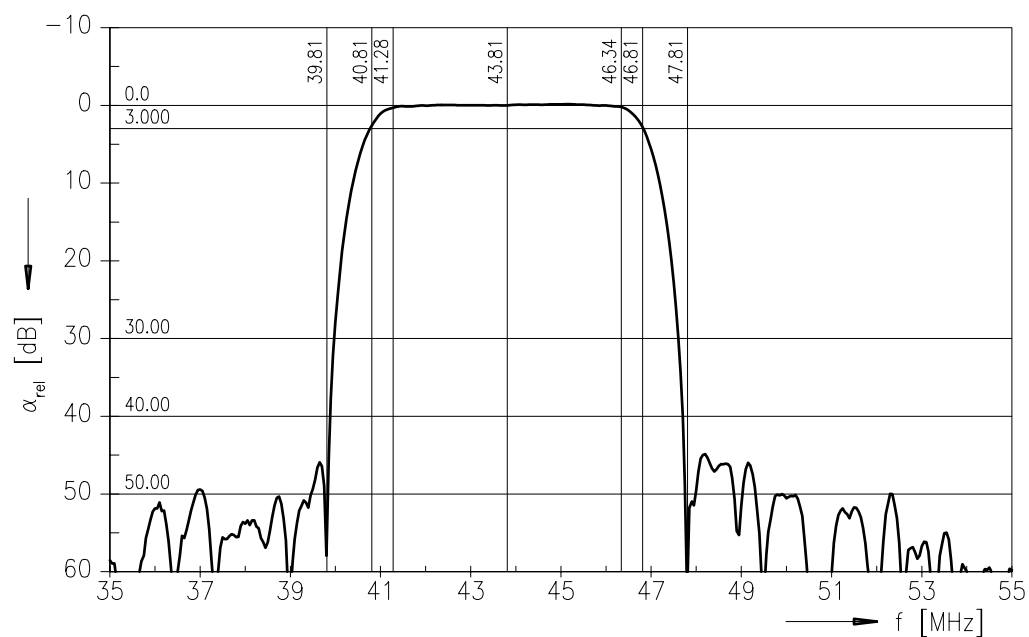
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Frequency response





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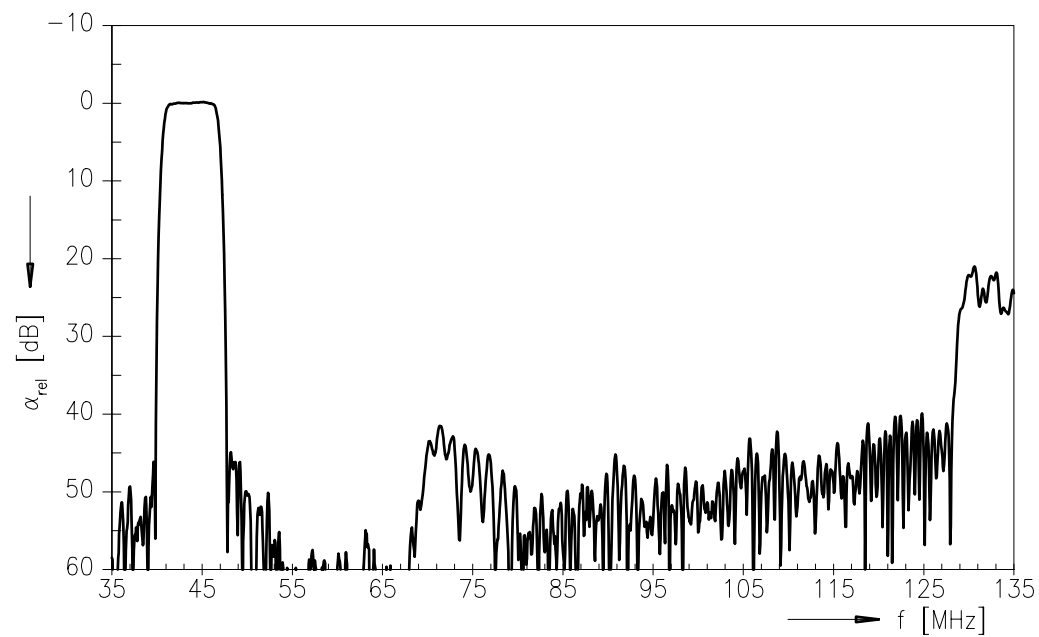
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Bandpass Filter

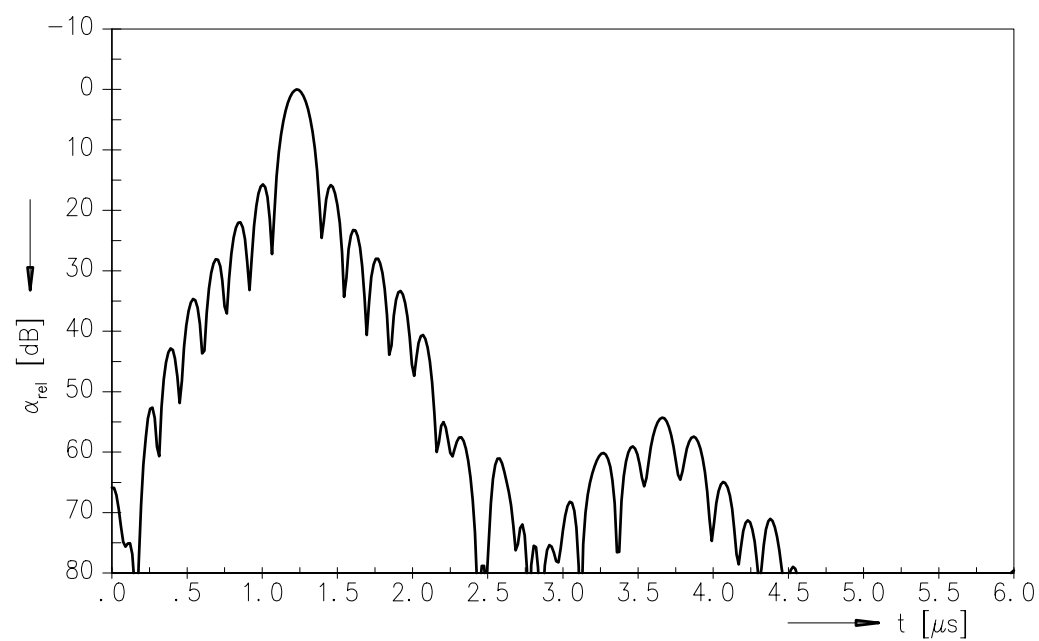
43,75 MHz

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Frequency response



Time domain response





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