



# SAW Components

Data Sheet X 6966 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

X 6966 M

## Bandpass Filter

36,125 MHz

### Data Sheet

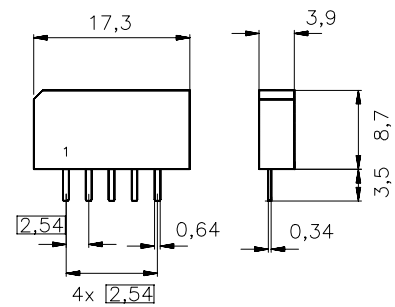
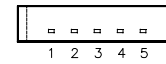
Plastic package **SIP5K**

#### Features

- IF filter for digital cable TV

#### Terminals

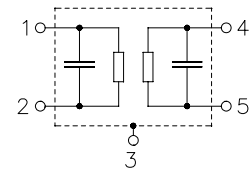
- Tinned CuFe alloy



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 6966 M	B39361-X6966-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.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	36,125 MHz	18,8	20,3	21,8	dB
<b>Amplitude ripple</b>	$\Delta\alpha$				
	32,65 ... 39,60 MHz	0,0	0,5	1,0	dB
<b>Pass bandwith</b>					
$\alpha_{\text{rel}} \leq 1\text{ dB}$	$B_{1\text{dB}}$	—	7,5	—	MHz
$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	—	8,0	—	MHz
$\alpha_{\text{rel}} \leq 30\text{ dB}$	$B_{30\text{dB}}$	—	9,4	—	MHz
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
	32,32 MHz	-0,1	0,9	1,9	dB
	39,93 MHz	0,4	1,4	2,4	dB
	32,13 MHz	1,5	2,7	3,9	dB
	40,13 MHz	2,3	3,5	4,7	dB
	31,25 MHz	37,0	51,0	—	dB
	47,25 MHz	45,0	60,0	—	dB
Lower sidelobe	25,00 ... 31,25 MHz	35,0	41,0	—	dB
Upper sidelobe	40,90 ... 50,00 MHz	32,0	39,0	—	dB
<b>Reflected wave signal suppression</b>					
1,0 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		50,0	56,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
Aperture 62,5 kHz	32,32 ... 39,93 MHz	—	40	—	ns
<b>Impedance at 36,125 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	2,3 $\parallel$ 14,7	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	2,4 $\parallel$ 3,9	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



SAW Components

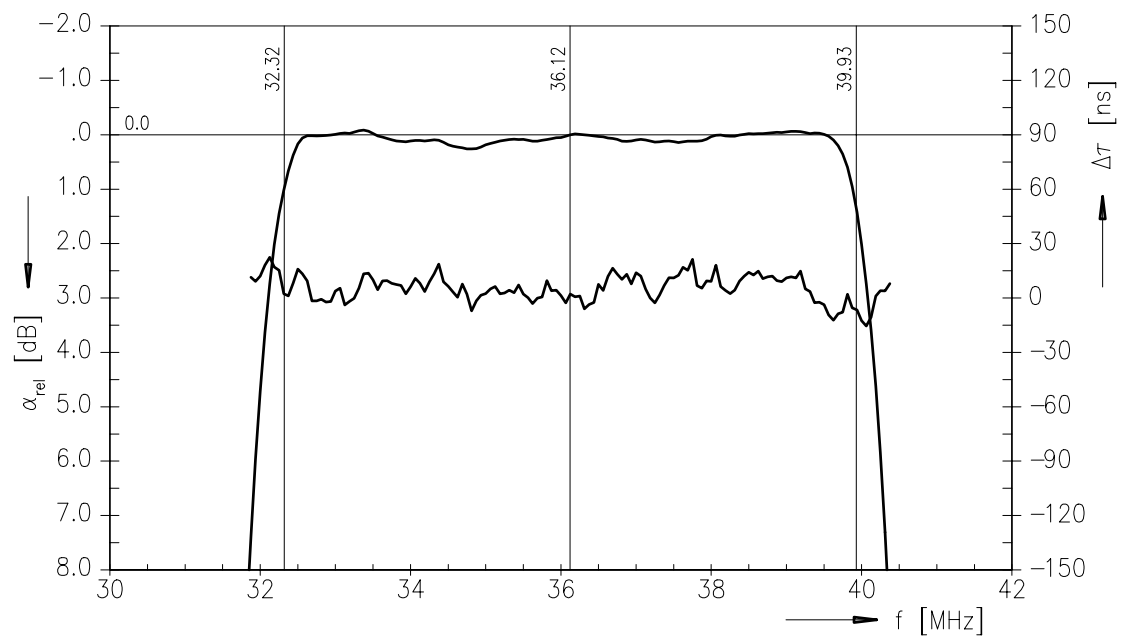
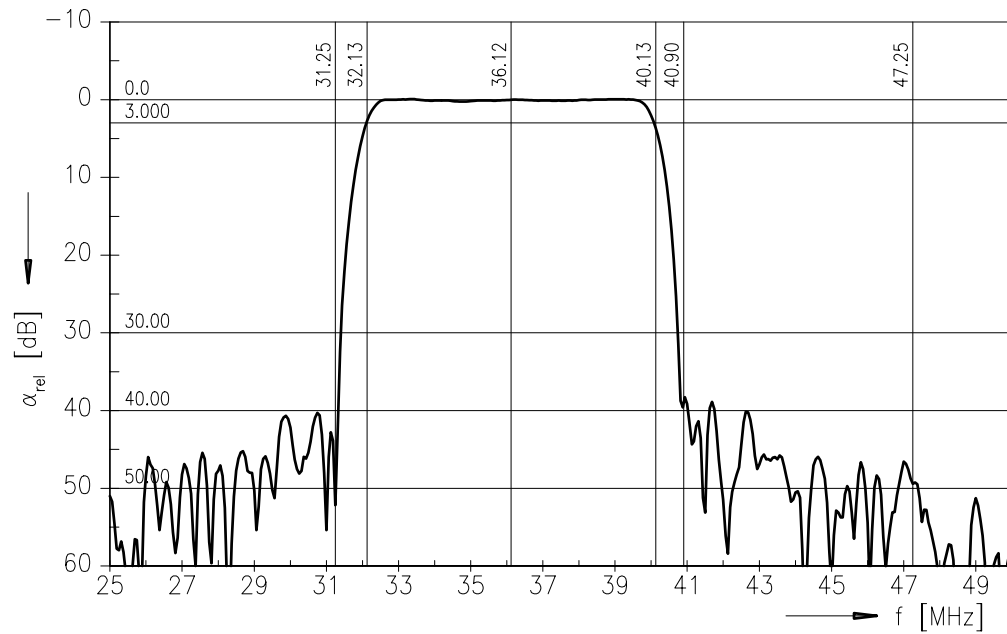
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Bandpass Filter

36,125 MHz

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Frequency response





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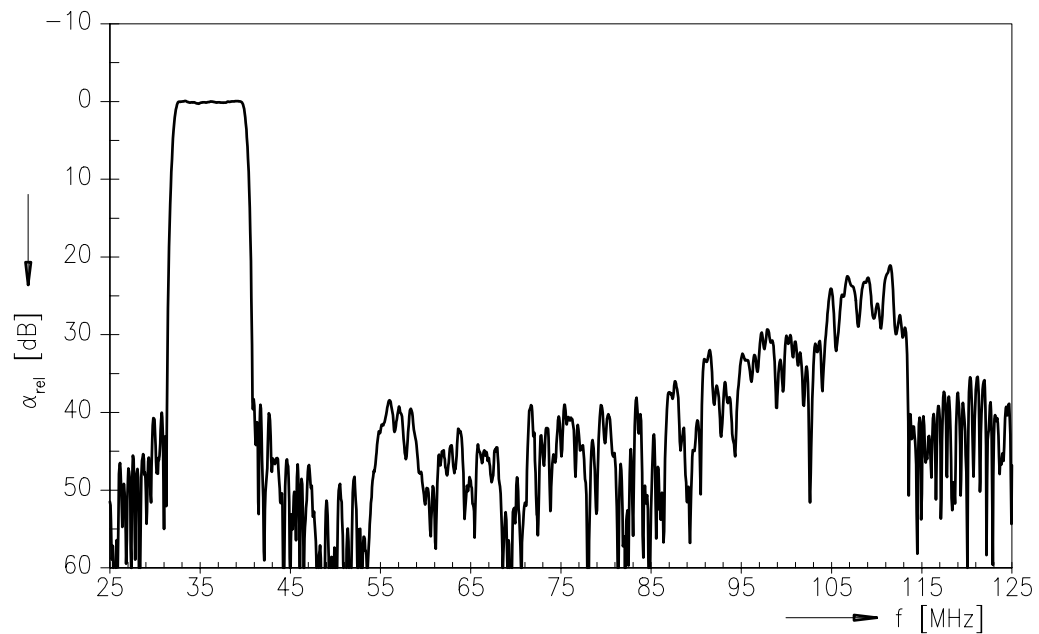
X 6966 M

Bandpass Filter

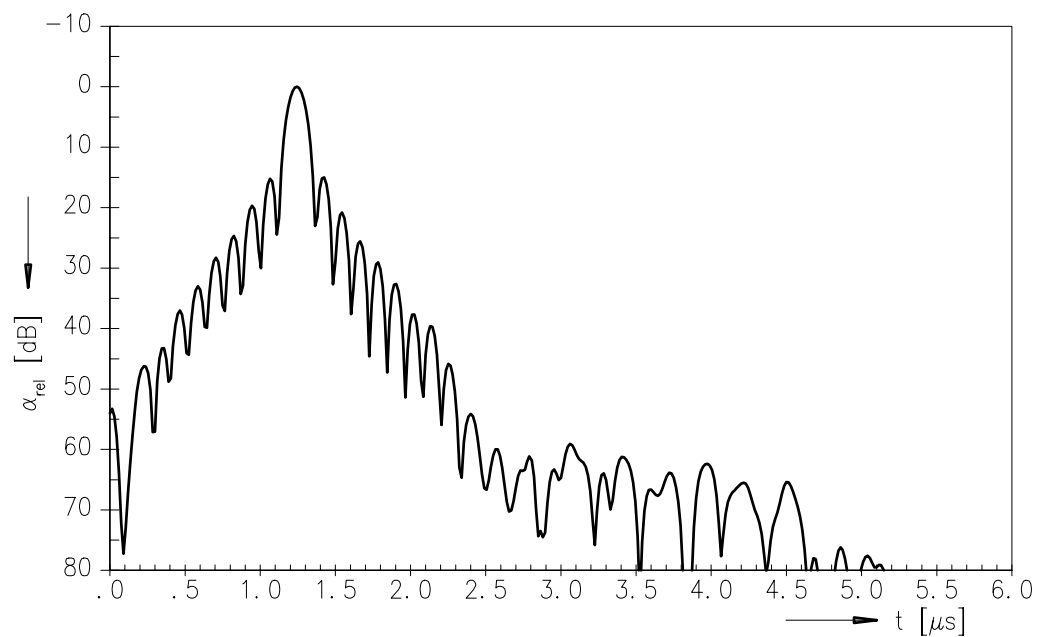
36,125 MHz

## Data Sheet

### Frequency response



### Time domain response





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