



SAW Components

Data Sheet X 6966 M





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X 6966 M

Bandpass Filter

36,125 MHz

Data Sheet

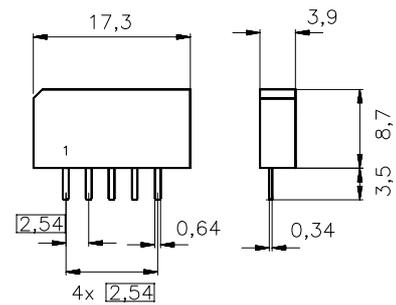
Plastic package **SIP5K**

Features

- IF filter for digital cable TV

Terminals

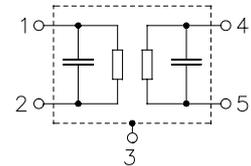
- Tinned CuFe alloy



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.	
Insertion attenuation					
	α				
Reference level for the following data	36,125 MHz	18,8	20,3	21,8	dB
Amplitude ripple					
	$\Delta\alpha$				
	32,65 ... 39,60 MHz	0,0	0,5	1,0	dB
Pass bandwidth					
$\alpha_{rel} \leq 1\text{ dB}$	B_{1dB}	—	7,5	—	MHz
$\alpha_{rel} \leq 3\text{ dB}$	B_{3dB}	—	8,0	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	B_{30dB}	—	9,4	—	MHz
Relative attenuation					
	α_{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
Reflected wave signal suppression					
1,0 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,2 μ s ... 1,1 μ s before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)					
	$\Delta\tau$				
Aperture 62,5 kHz	32,32 ... 39,93 MHz	—	40	—	ns
Impedance at 36,125 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2,3 \parallel 14,7	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,4 \parallel 3,9	—	k Ω \parallel pF
Temperature coefficient of frequency					
	TC_f	—	-72	—	ppm/K



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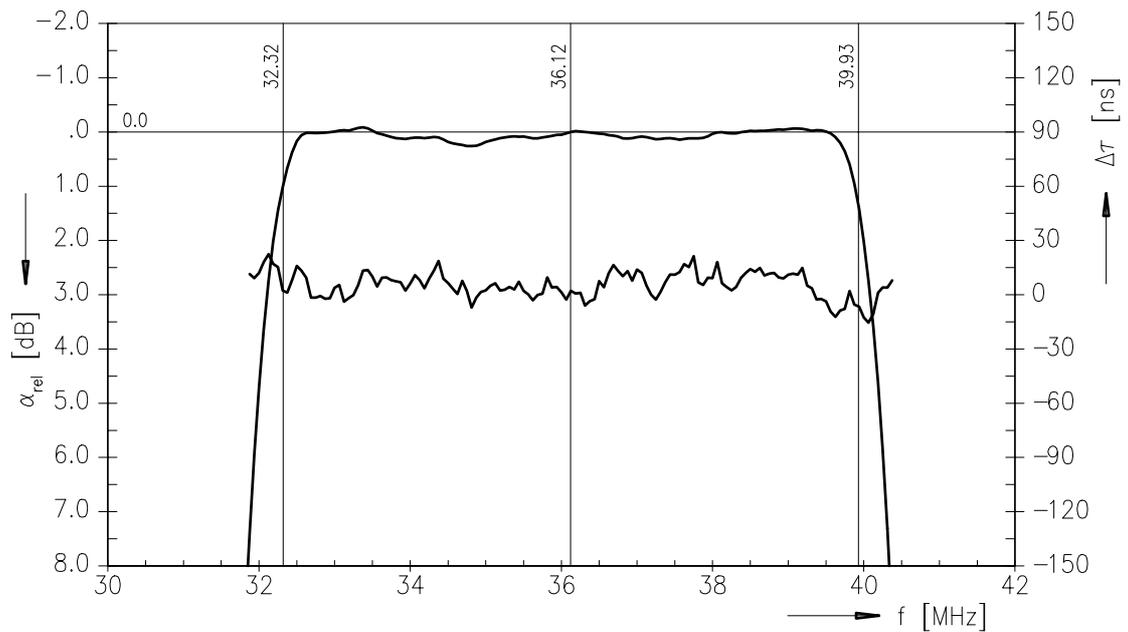
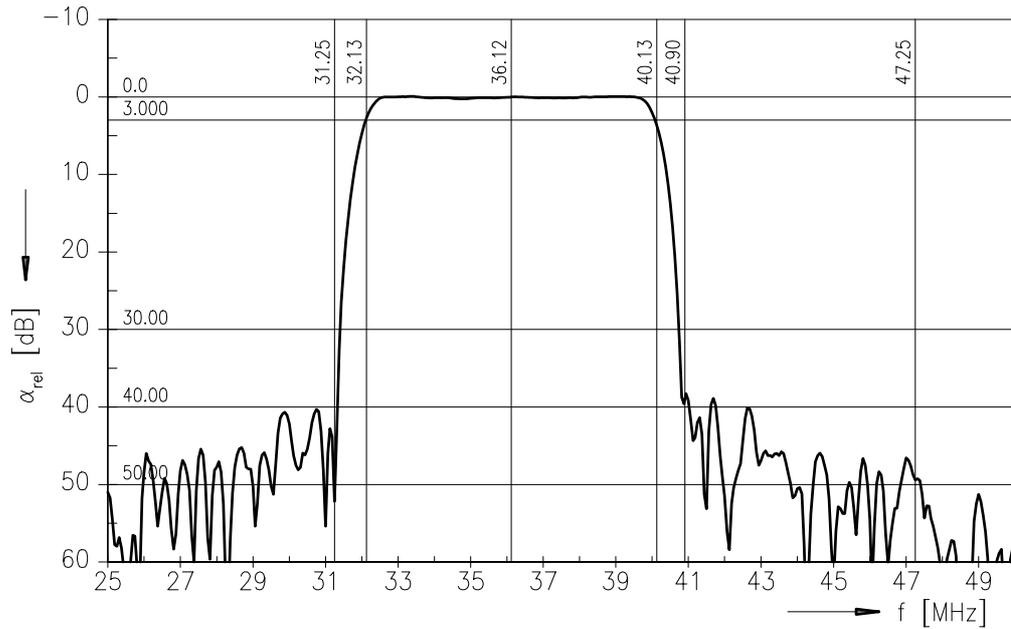
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Frequency response





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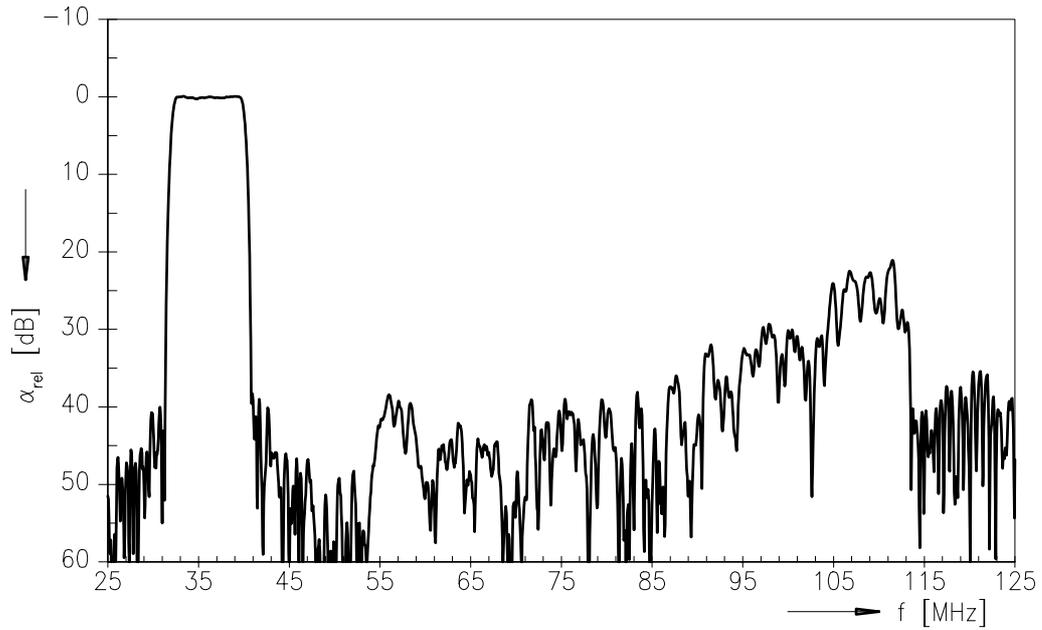
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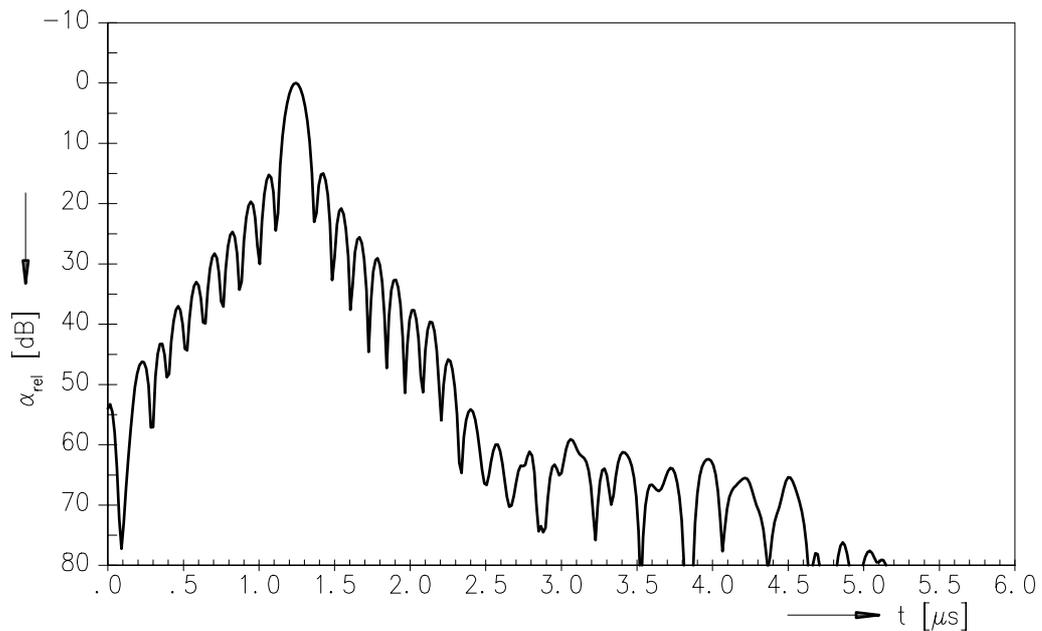
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Frequency response



Time domain response





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