



SAW Components

Data Sheet X 6966 M

Data Sheet



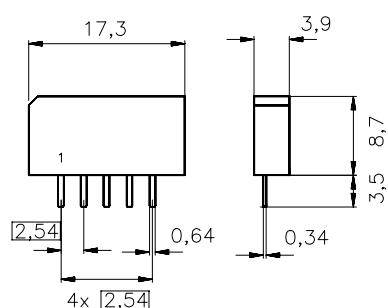
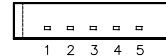
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**SAW Components****X 6966 M****Bandpass Filter****36,125 MHz****Data Sheet****Plastic package SIP5K****Features**

- IF filter for digital cable TV

Terminals

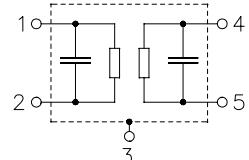
- Tinned CuFe alloy



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: $T_A = 25^\circ\text{C}$
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
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					
$\alpha_{\text{rel}} \leq 1 \text{ dB}$	$B_{1\text{dB}}$	—	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
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 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,2 μs ... 1,1 μs 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: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	2,3 \parallel 14,7	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	2,4 \parallel 3,9	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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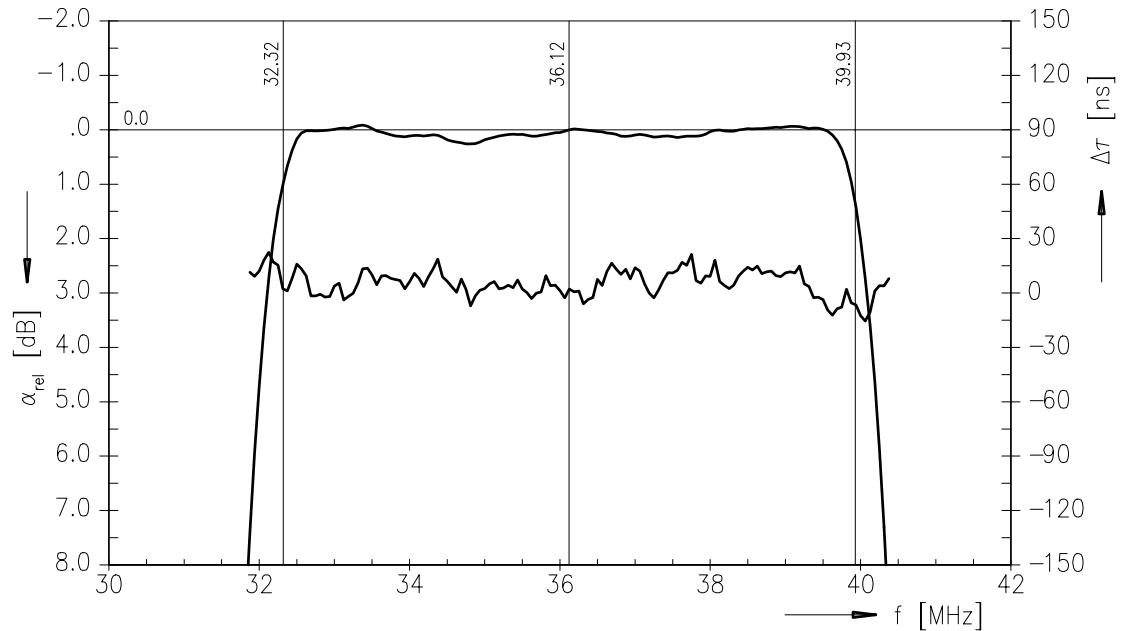
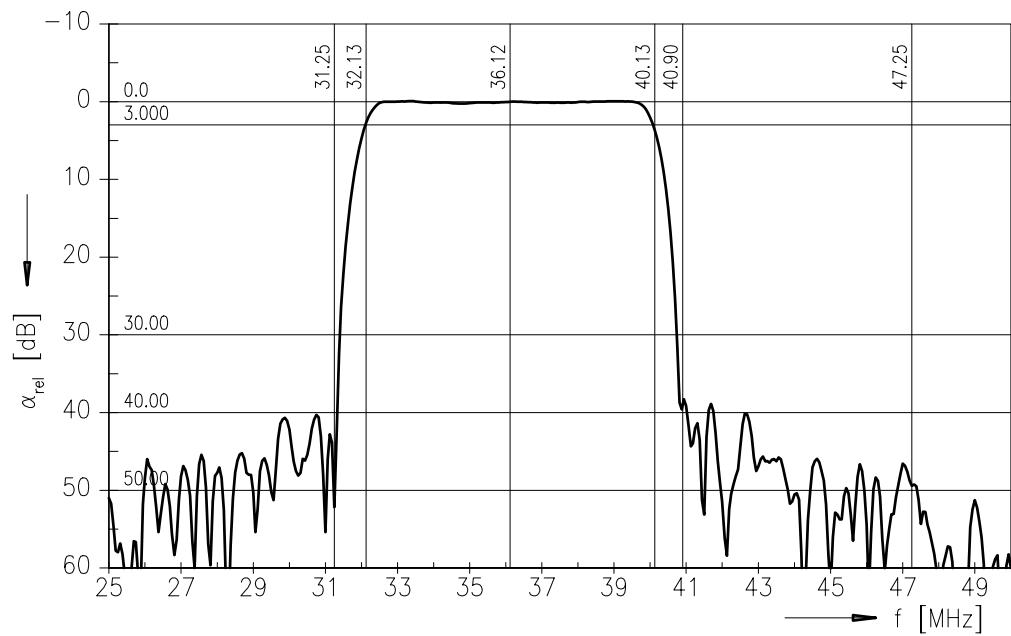
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Bandpass Filter

36,125 MHz

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Frequency response



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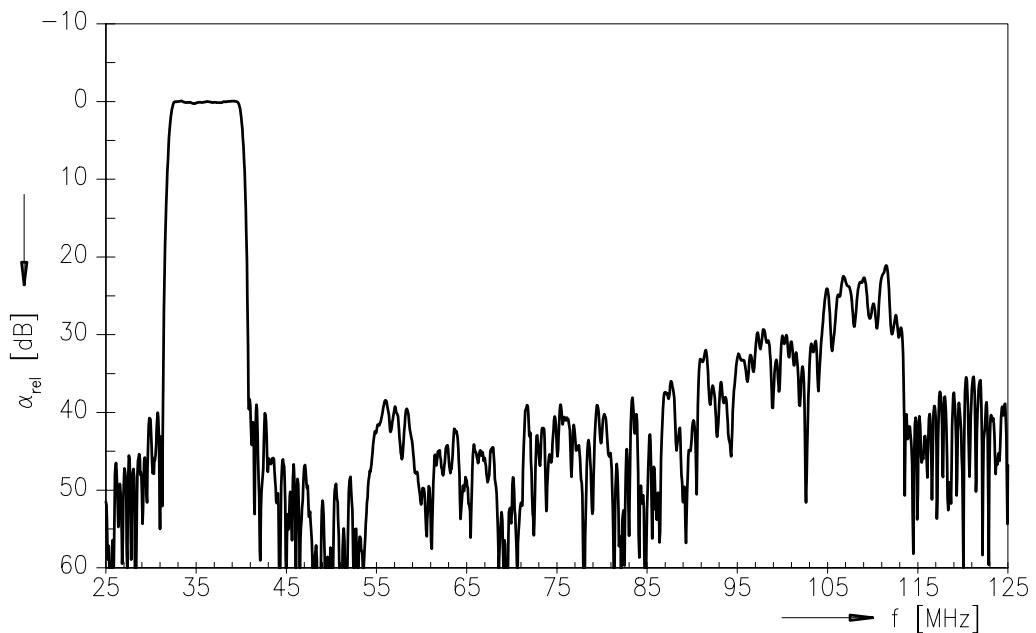
X 6966 M

Bandpass Filter

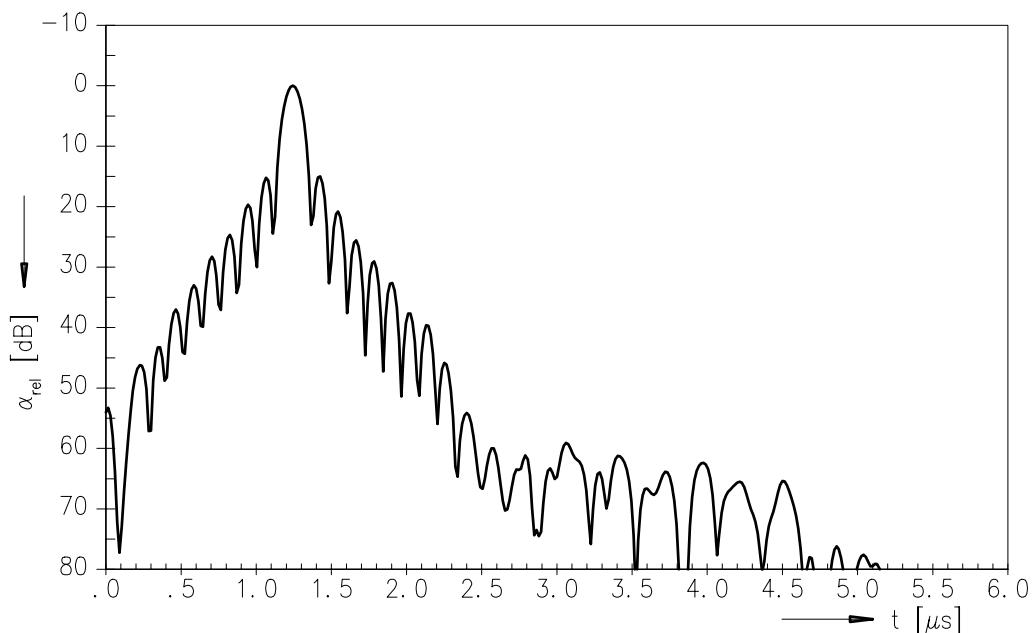
36,125 MHz

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Frequency response



Time domain response





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