



**THE DATASHEET OF  
B39438-X6964-M100**





# SAW Components

Data Sheet X 6964 M





**SAW Components**

**X 6964 M**

**Bandpass Filter**

**43,75 MHz**

Data Sheet

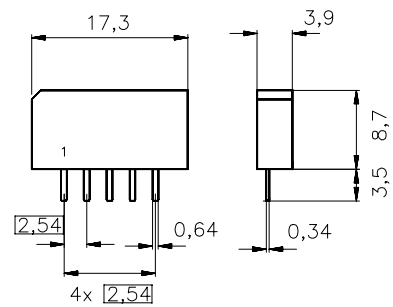
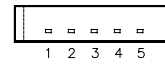
Plastic package **SIP5K**

**Features**

- IF filter for digital cable TV

**Terminals**

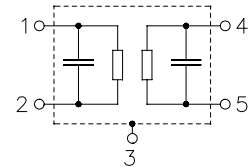
- Tinned CuFe alloy



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	$V_{DC}$	5	V	between any terminals
AC voltage	$V_{pp}$	10	V	between any terminals



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**Characteristics**

Reference temperature:  $T_A = 25 (45) \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

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



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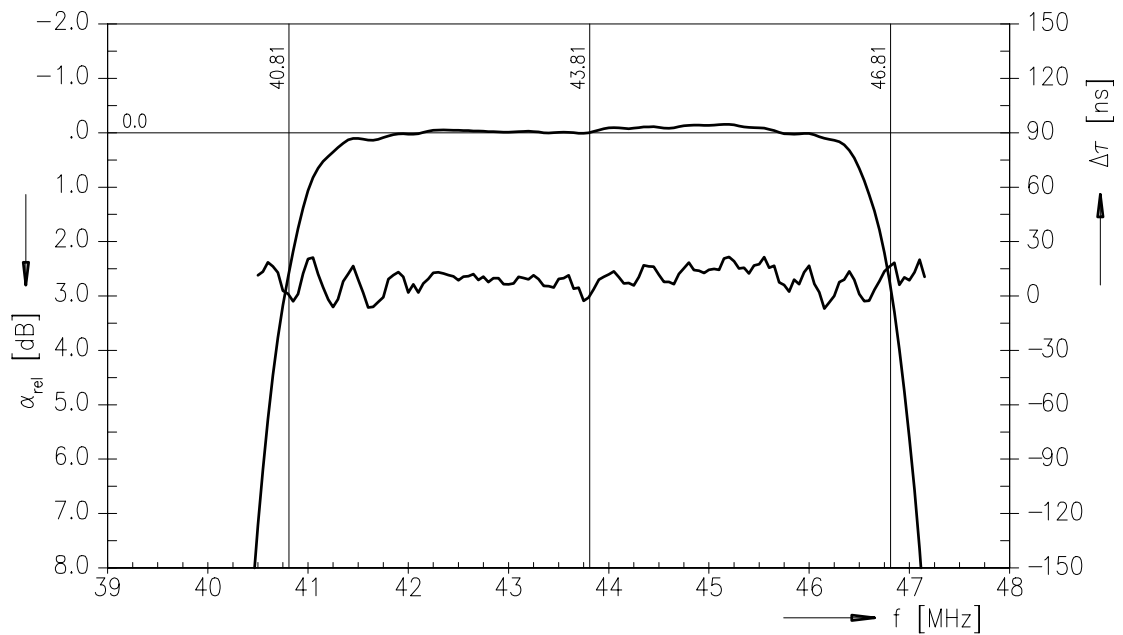
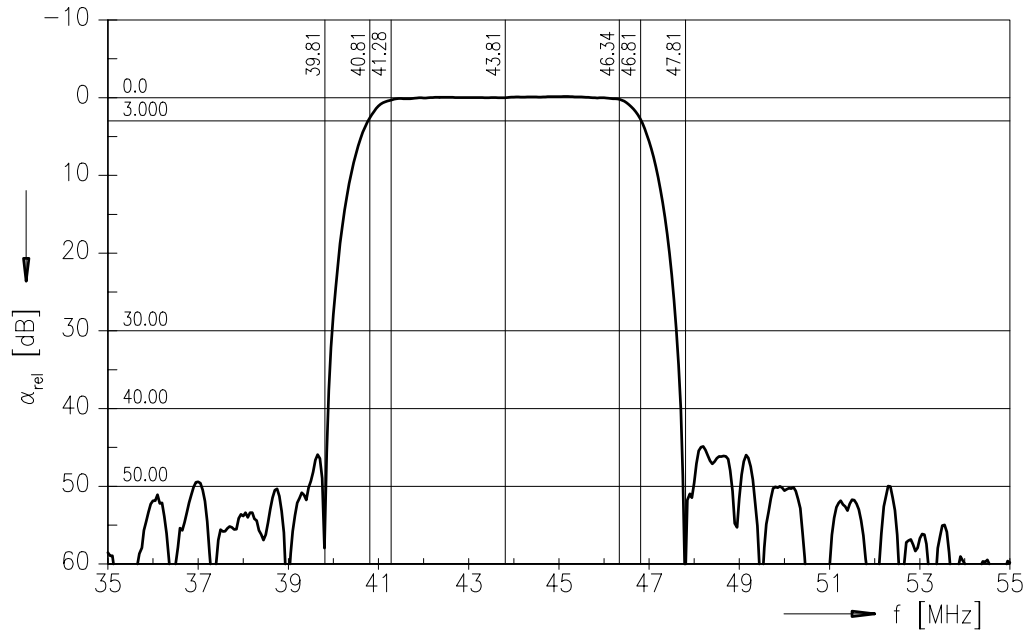
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Frequency response





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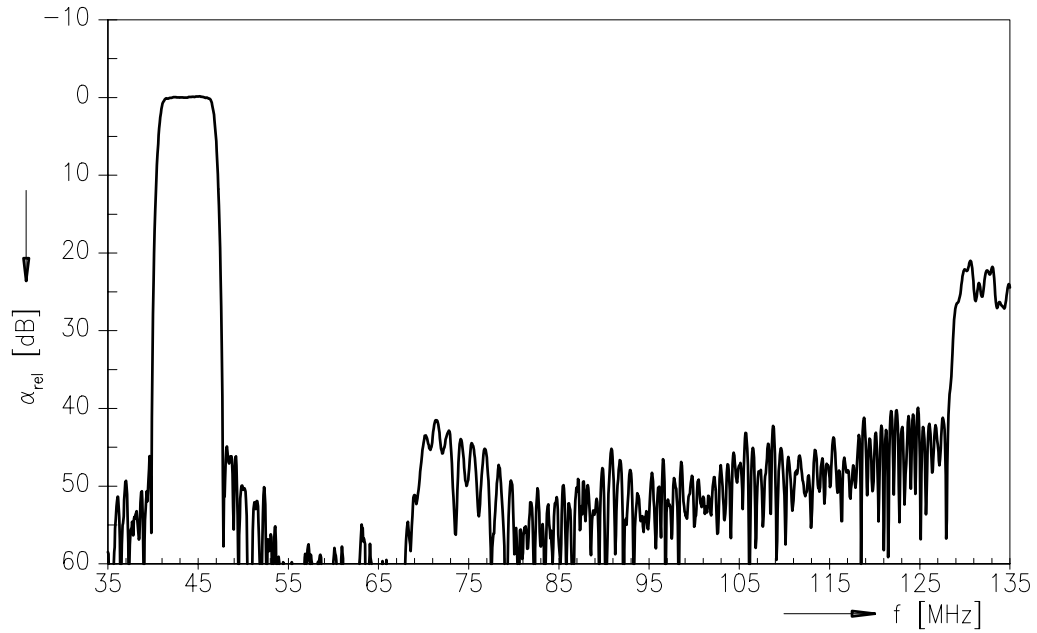
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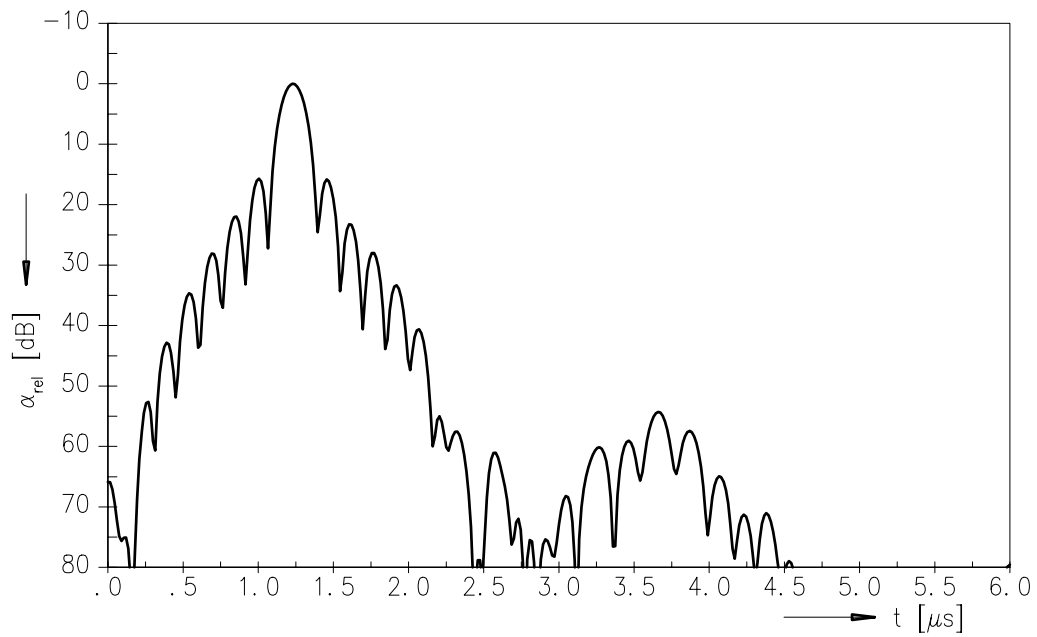
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Frequency response



Time domain response





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