



SAW Components

Data Sheet X 6965 M





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X 6965 M

Bandpass Filter

44,00 MHz

Data Sheet

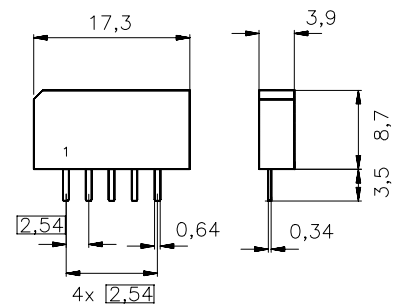
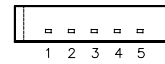
Plastic package **SIP5K**

Features

- IF filter for digital cable TV

Terminals

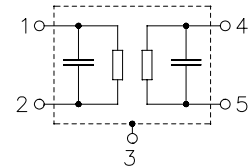
- Tinned CuFe alloy



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 6965 M	B39440-X6965-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: $T_A = 25 (45) ^\circ C$
 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 (center between 3 dB points)	f_C	—	44,00	—	MHz
Insertion attenuation Reference level for the following data	α 44,06 (44,00) MHz	12,9	14,4	15,9	dB
Pass bandwidth $\alpha_{rel} \leq 3 \text{ dB}$	B_{3dB}	—	6,0	—	MHz
$\alpha_{rel} \leq 30 \text{ dB}$	B_{30dB}	—	7,6	—	MHz
Amplitude ripple Aperture: 250 kHz	$\Delta\alpha$ 41,53 ... 46,59 MHz	—	0,4	0,8	dB
Relative attenuation	α_{rel}				
	41,53 (41,47) MHz	—	0,4	—	dB
	46,59 (46,53) MHz	—	0,4	—	dB
	41,06 (41,00) MHz	1,8	3,0	4,2	dB
	47,06 (47,00) MHz	1,5	2,7	3,9	dB
	47,31 (47,25) MHz	—	6,2	—	dB
	39,81 (39,75) MHz	40,0	52,0	—	dB
Lower sidelobe					
	35,06 ... 39,46 (35,00 ... 39,40) MHz	44,0	50,0	—	dB
	39,46 ... 40,06 (39,40 ... 40,00) MHz	38,0	44,0	—	dB
Upper sidelobe					
	48,06 ... 50,06 (48,00 ... 50,00) MHz	36,0	43,0	—	dB
	50,06 ... 55,06 (50,00 ... 55,00) MHz	42,0	48,0	—	dB
Reflected wave signal suppression 1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression 1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
Aperture 250 kHz	41,53 ... 46,59 MHz	—	20	40	ns
Impedance at 44,06 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,3 \parallel 16,1	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,1 \parallel 5,6	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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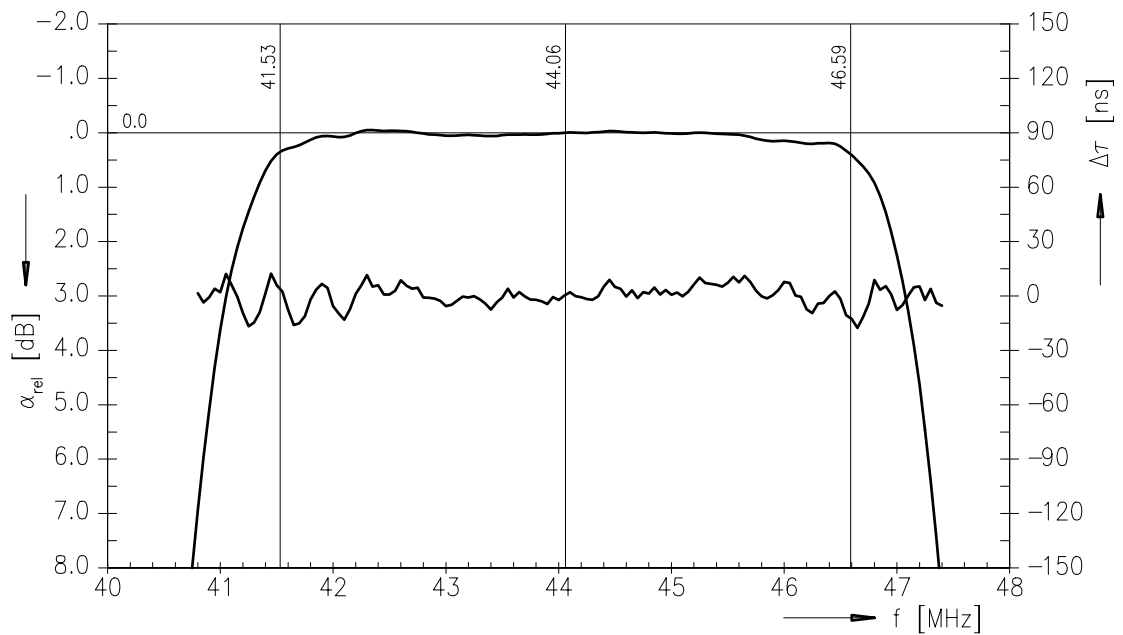
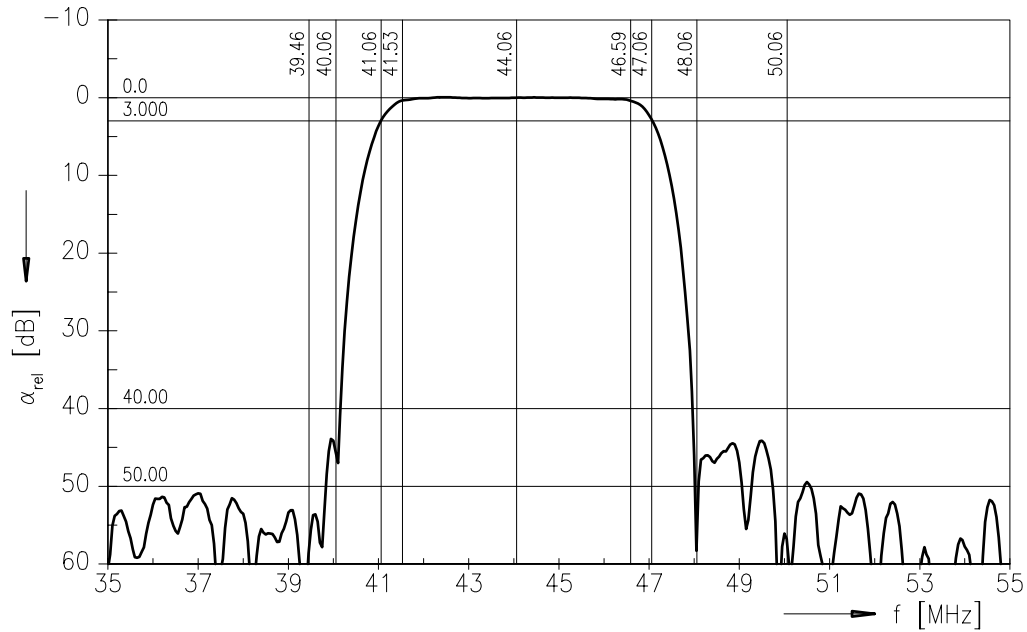
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Frequency response





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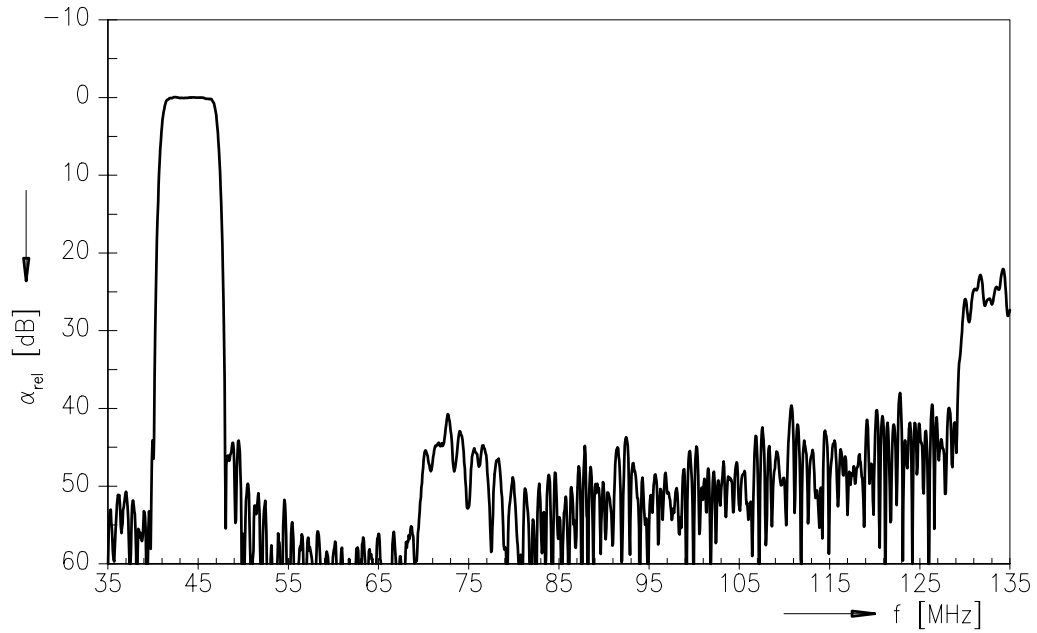
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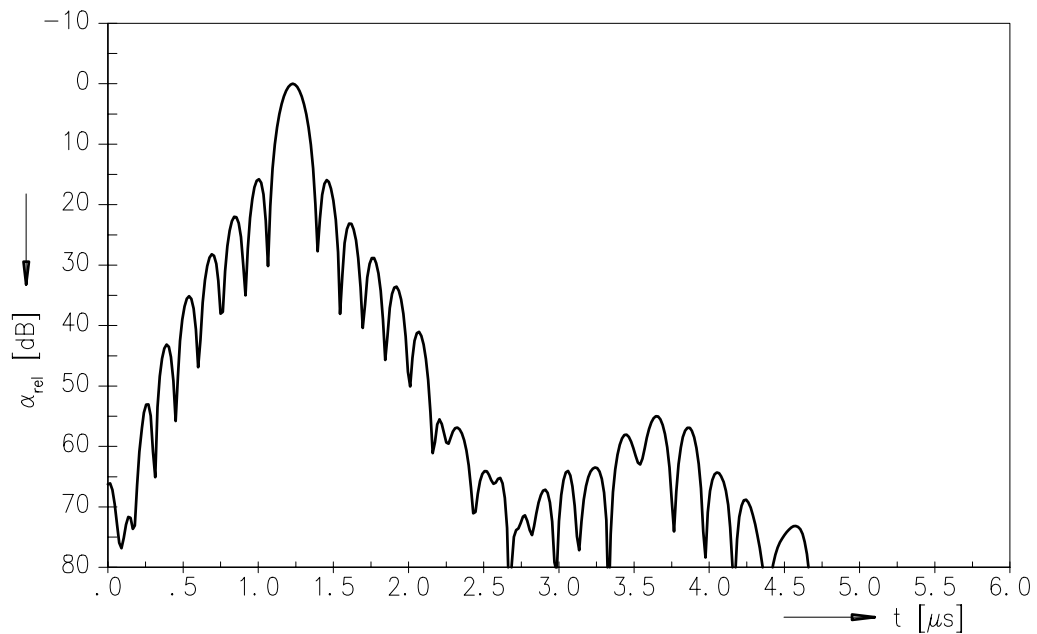
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Frequency response



Time domain response





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