



SAW multimedia filters

Series/Type: X6965D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39440X6965D100	X6965N	2004-07-23	2004-09-30	
B39440X6965N201		2011-01-14	2011-09-30	2012-09-30

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SAW Components

X 6965 D

Bandpass Filter

44,00 MHz

Data Sheet

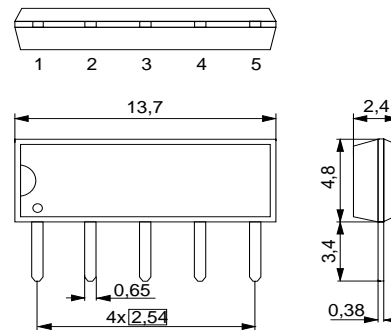
Duroplast package SIP5D

Features

- IF filter for digital cable TV
- Standard IC package

Terminals

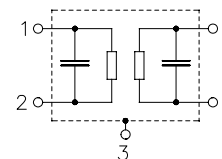
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 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 D	B39440-X6965-N201	C61157-A1-A21	F61074-V8049-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: $T_A = 25 (45) ^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
Center frequency (center between 3 dB points)	f_C	—	(44,00)	—	MHz
Insertion attenuation	α				
Reference level for the following data	44,06 (44,00) MHz	13,2	14,7	16,2	dB
Pass bandwidth					
$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	—	6,0	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{30\text{dB}}$	—	7,6	—	MHz
Amplitude ripple	$\Delta\alpha$				
41,53 ... 46,59 MHz		—	0,4	—	dB
Relative attenuation	α_{rel}				
41,53 (41,47) MHz		—	0,3	—	dB
46,59 (46,53) MHz		—	0,4	—	dB
41,06 (41,00) MHz		1,5	2,7	3,8	dB
47,06 (47,00) MHz		1,8	3,0	4,2	dB
47,31 (47,25) MHz		—	8,3	—	dB
39,81 (39,75) MHz		40,0	55,0	—	dB
Lower sidelobe					
35,06 ... 39,46 (35,00 ... 39,40) MHz		43,0	47,0	—	dB
39,46 ... 40,06 (39,40 ... 40,00) MHz		38,0	47,0	—	dB
Upper sidelobe					
48,06 ... 50,06 (48,00 ... 50,00) MHz		37,0	42,0	—	dB
50,06 ... 55,06 (50,00 ... 55,00) MHz		43,0	51,0	—	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)	$\Delta\tau$				
41,53 ... 46,59 MHz		—	30	—	ns
Impedance at 44,06 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,3 \parallel 16,1	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,1 \parallel 5,6	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



SAW Components

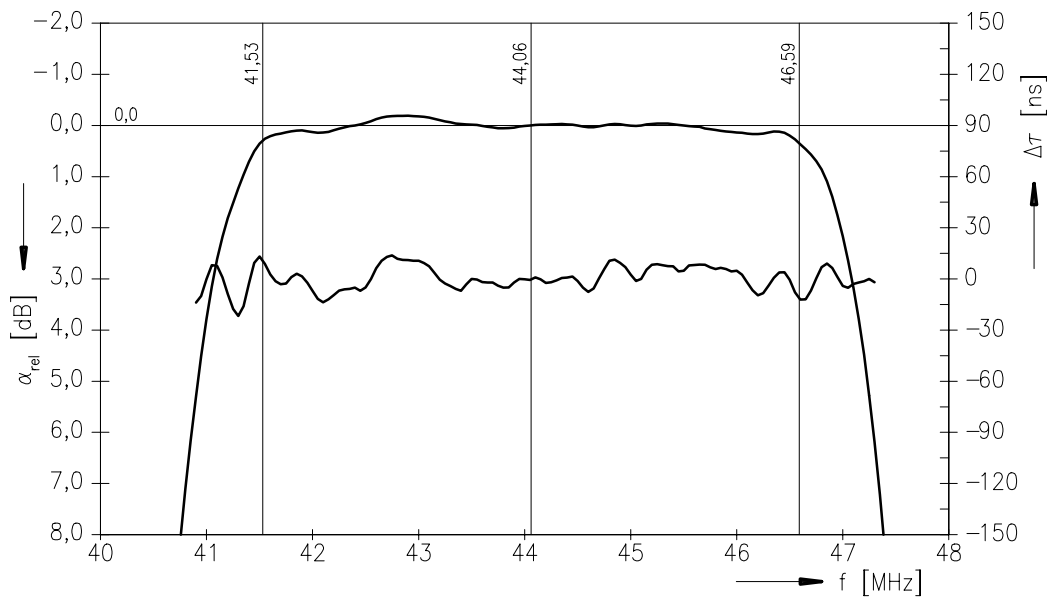
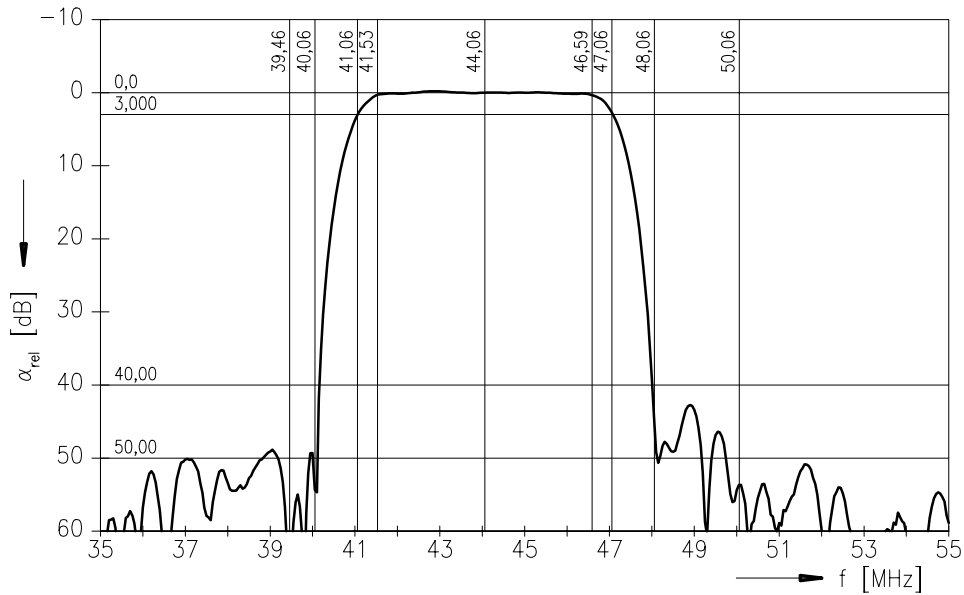
X 6965 D

Bandpass Filter

44,00 MHz

Data Sheet

Frequency response





SAW Components

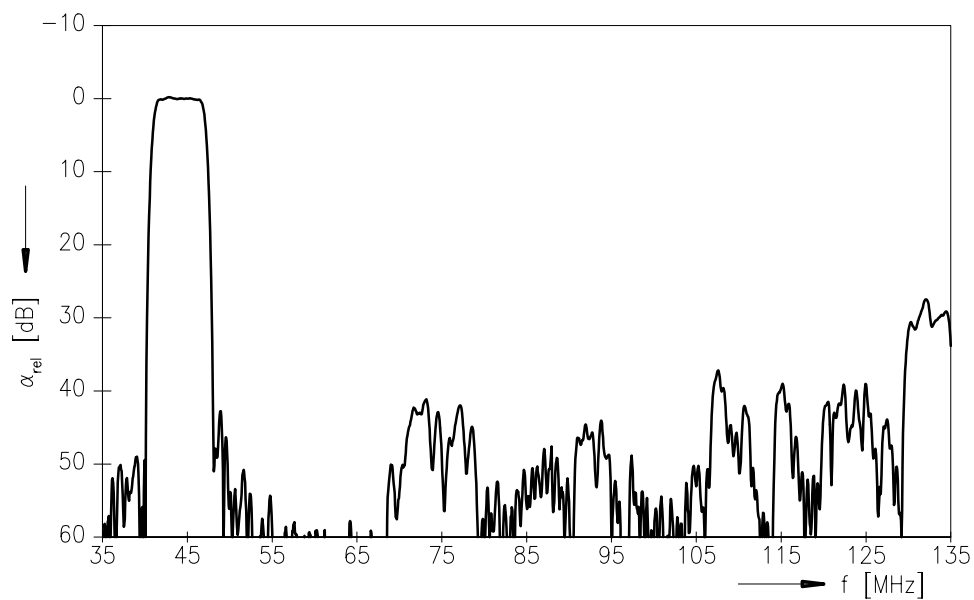
X 6965 D

Bandpass Filter

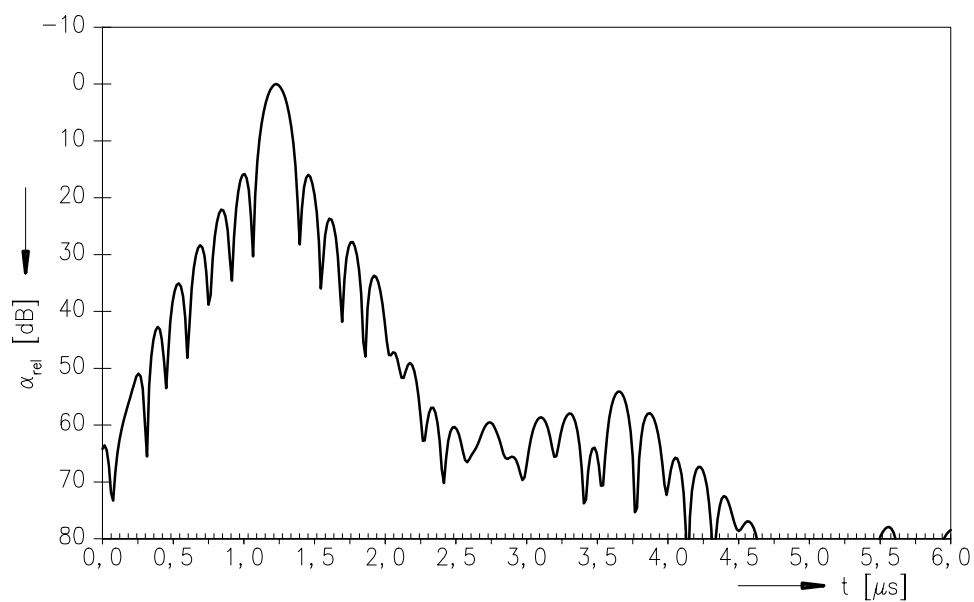
44,00 MHz

Data Sheet

Frequency response



Time domain response





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Bandpass Filter

44,00 MHz

Data Sheet

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Surface Acoustic Wave Components Division, SAW CE MM PD

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This brochure replaces the previous edition.

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