



# SAW multimedia filters

## Series/Type: X6964D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39438X6964N201		2011-01-14	2011-09-30	2012-09-30

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<b>SAW Components</b>	<b>X 6964 D</b>
<b>Bandpass Filter</b>	<b>43,75 MHz</b>

# Data Sheet

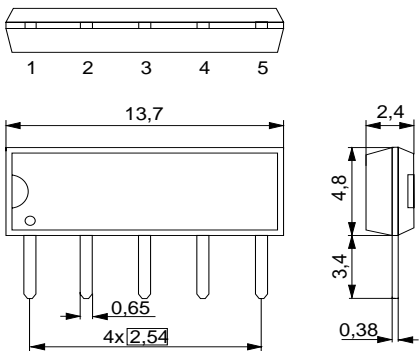
Duroplast package **SIP5D**

## Features

- IF filter for digital cable TV
- Standard IC package

## Terminals

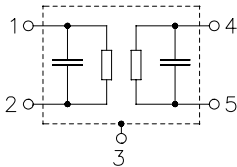
- Tinned CuFe alloy



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 6964 D	B39438-X6964-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:	$T_A = 25 \text{ (45)} \text{ } ^\circ\text{C}$
Terminating source impedance:	$Z_S = 50 \text{ } \Omega$
Terminating load impedance:	$Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	(43,68)	(43,75)	(43,82)	MHz
(center between 10 dB points)					
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	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>	$\alpha_{\text{rel}}$				
	41,28 (41,22) MHz	—	0,3	—	dB
	46,34 (46,28) MHz	-0,8	0,2	1,2	dB
	40,81 (40,75) MHz	1,5	2,7	3,9	dB
	46,81 (46,75) MHz	1,5	2,7	3,9	dB
	39,81 (39,75) MHz	38,0	53,0	—	dB
	47,81 (47,75) MHz	37,0	48,0	—	dB
<b>Lower sidelobe</b>					
	35,06 ... 39,06 (35,00 ... 39,00) MHz	42,0	48,0	—	dB
	39,06 ... 39,81 (39,00 ... 39,75) MHz	37,0	46,0	—	dB
<b>Upper sidelobe</b>					
	47,81 ... 50,06 (47,75 ... 50,00) MHz	36,0	41,0	—	dB
	50,06 ... 55,06 (50,00 ... 55,00) MHz	42,0	48,0	—	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>	$\Delta\tau$				
40,81 ... 46,81 (40,75 ... 46,75) MHz		—	40	—	ns
<b>Impedance at 43,81 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,1 $\parallel$ 16,4	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,1 $\parallel$ 5,0	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



SAW Components

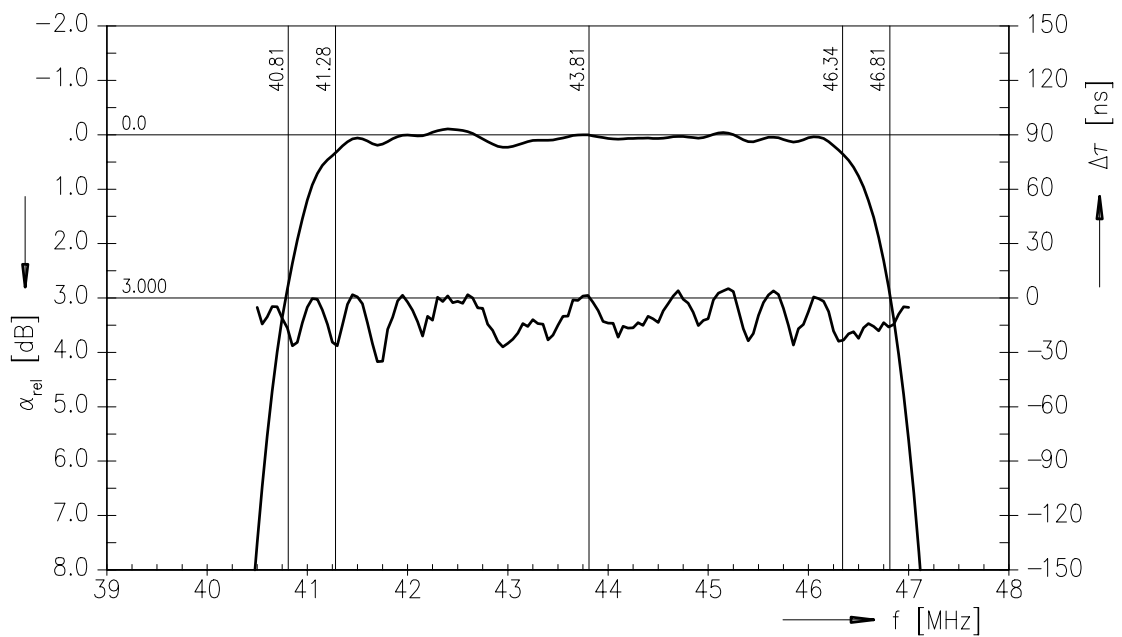
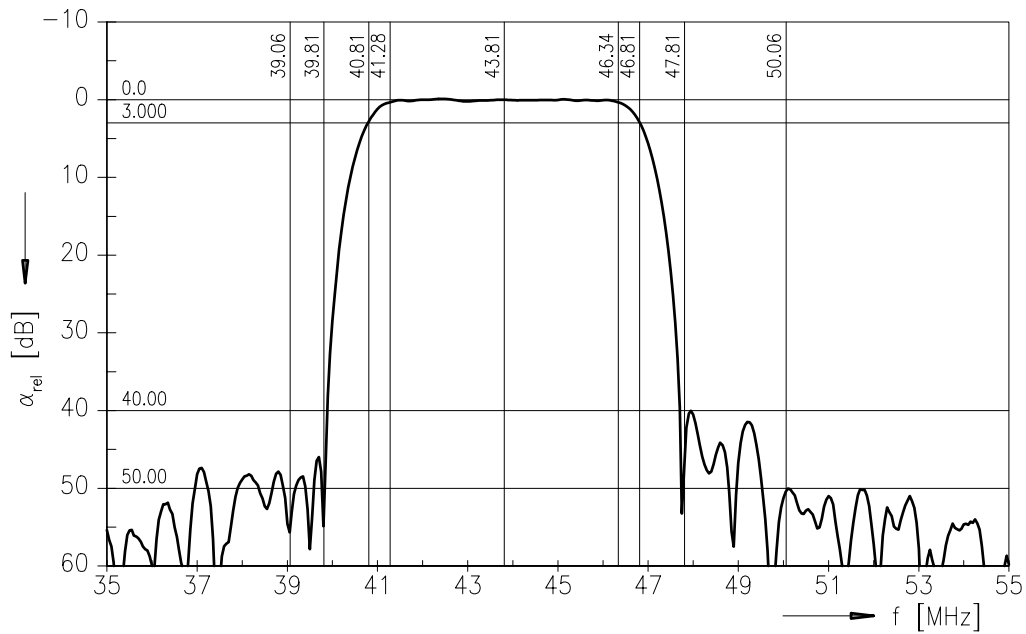
X 6964 D

Bandpass Filter

43,75 MHz

Data Sheet

Frequency response





**SAW Components**

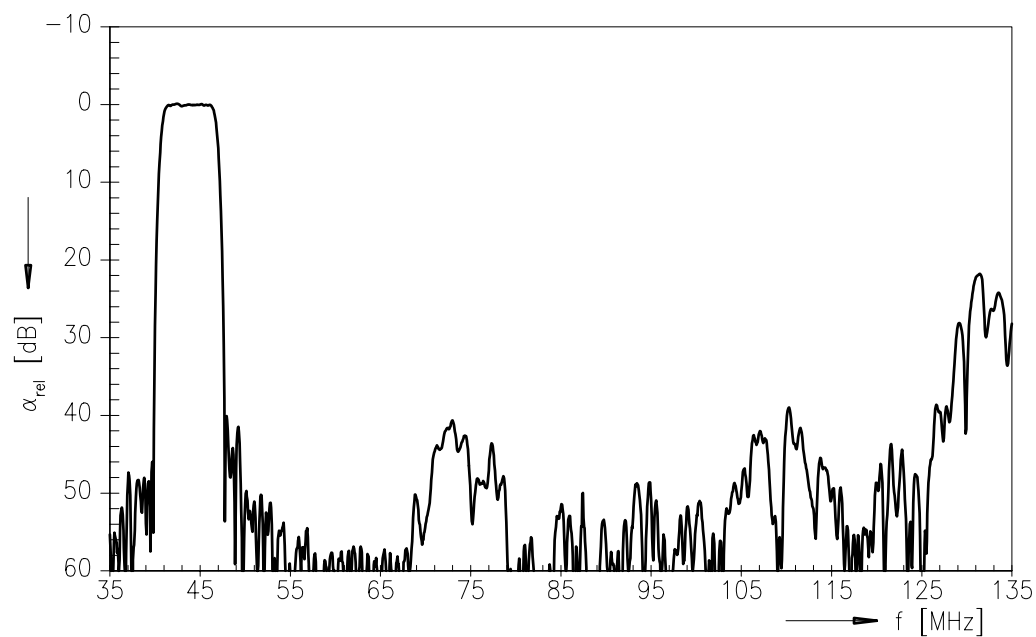
**X 6964 D**

**Bandpass Filter**

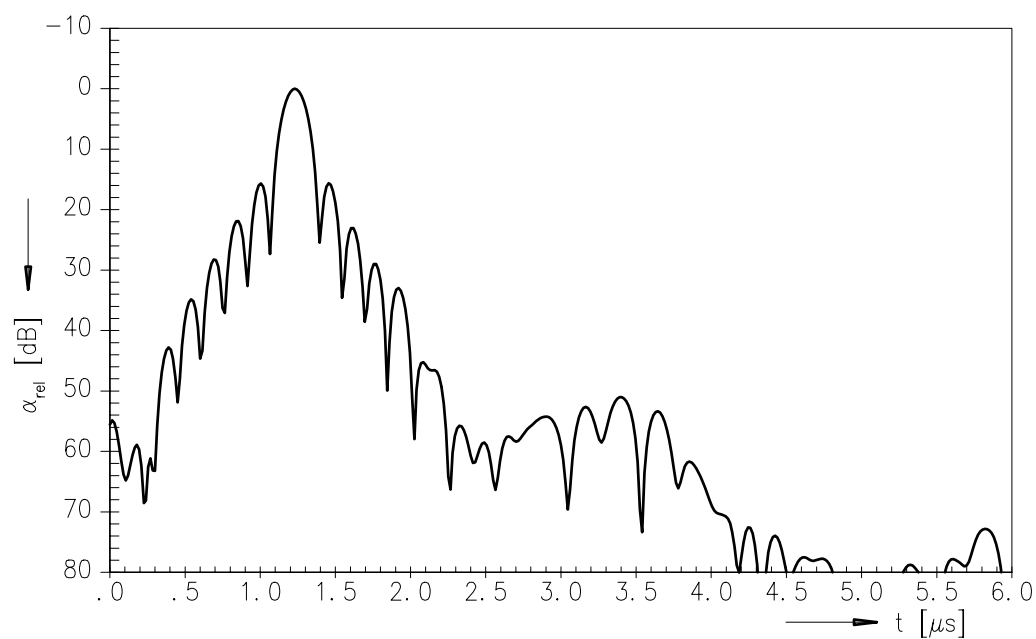
**43,75 MHz**

**Data Sheet**

**Frequency response**



**Time domain response**





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Data Sheet

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