



SAW Components

Data Sheet X 6864 D





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X 6864 D

Bandpass Filter

43,75 MHz

Data Sheet

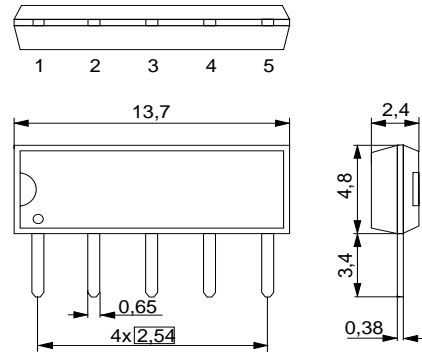
Duroplast package **SIP5D**

Features

- IF filter for digital cable TV
- Standard IC package

Terminals

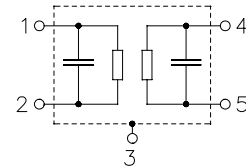
- Tinned CuFe alloy



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 6864 D	B39438-X6864-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: $T_A = 25 (45) \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
Center frequency (center between 10 dB points)	f_C	—	(43,75)	—	MHz
Insertion attenuation Reference level for the following data	α 43,81 (43,75) MHz	13,7	15,2	16,7	dB
Pass bandwidth $\alpha_{rel} \leq 3 \text{ dB}$	B_{3dB}	—	6,2	—	MHz
$\alpha_{rel} \leq 30 \text{ dB}$	B_{30dB}	—	7,6	—	MHz
Relative attenuation 40,71 (40,65) MHz	α_{rel}	—	3,0	—	dB
46,91 (46,85) MHz		—	2,2	—	dB
Lower sidelobe 35,06 ... 39,06 (35,00 ... 39,00) MHz		40,0	46,0	—	dB
39,06 ... 39,76 (39,00 ... 39,70) MHz		38,0	45,0	—	dB
Upper sidelobe 47,86 ... 49,66 (47,80 ... 49,60) MHz		38,0	44,0	—	dB
49,66 ... 55,06 (49,60 ... 55,00) MHz		41,0	47,0	—	dB
Reflected wave signal suppression 1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 43,81 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression 1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 43,81 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p) Aperture 50 kHz	$\Delta\tau$	—	40	—	ns
Impedance at 43,81 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 5,5	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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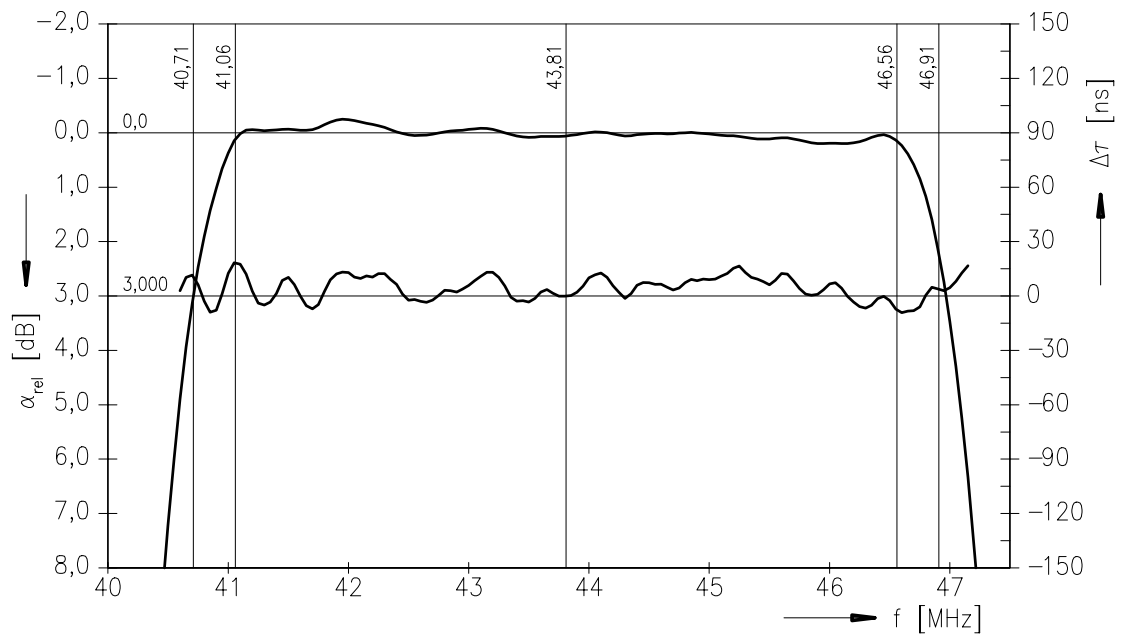
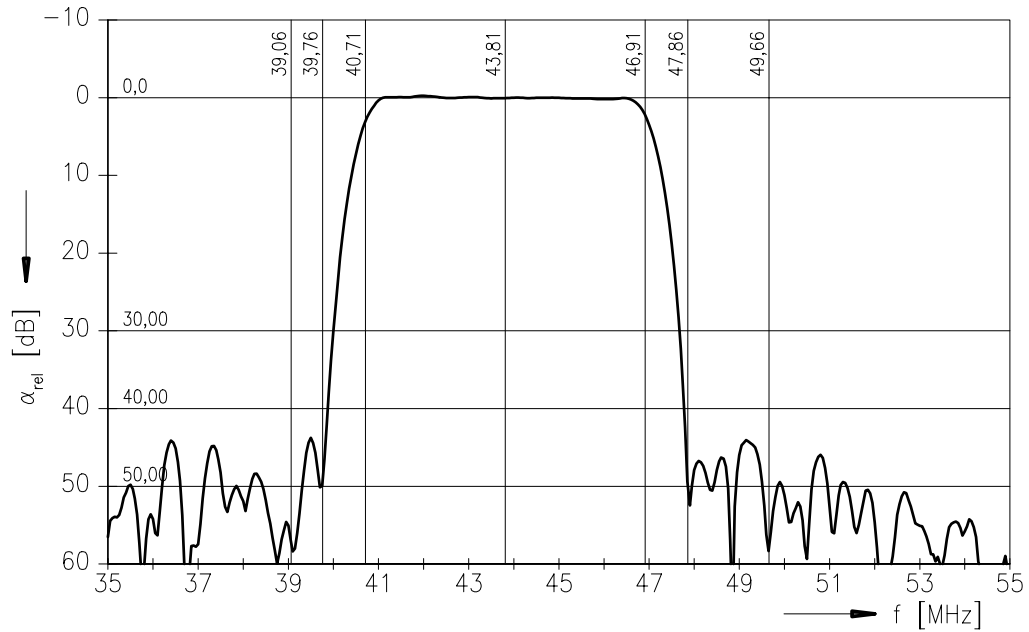
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Frequency response





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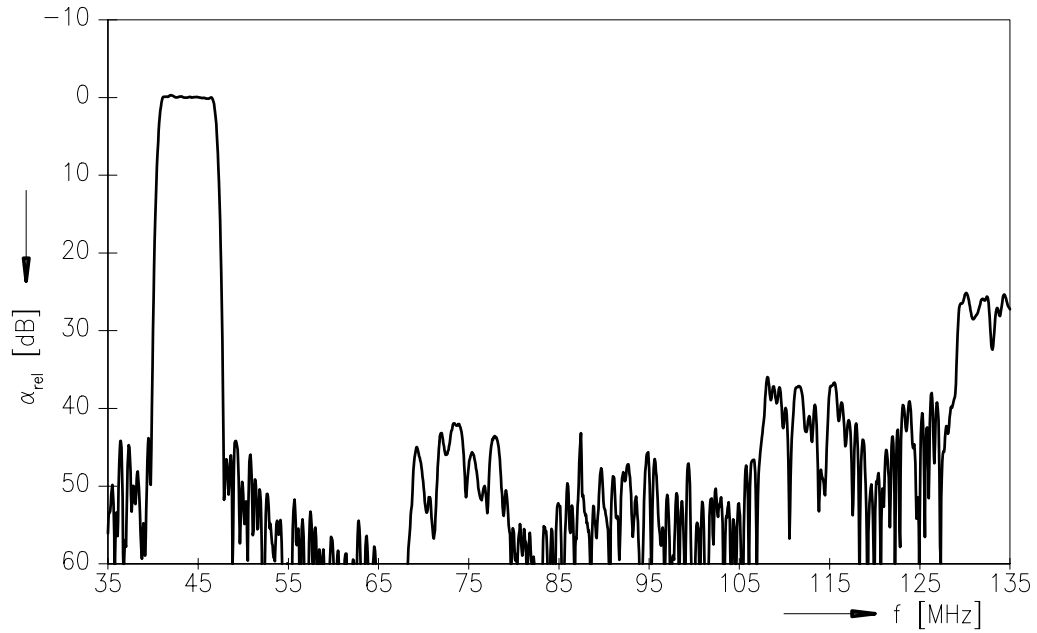
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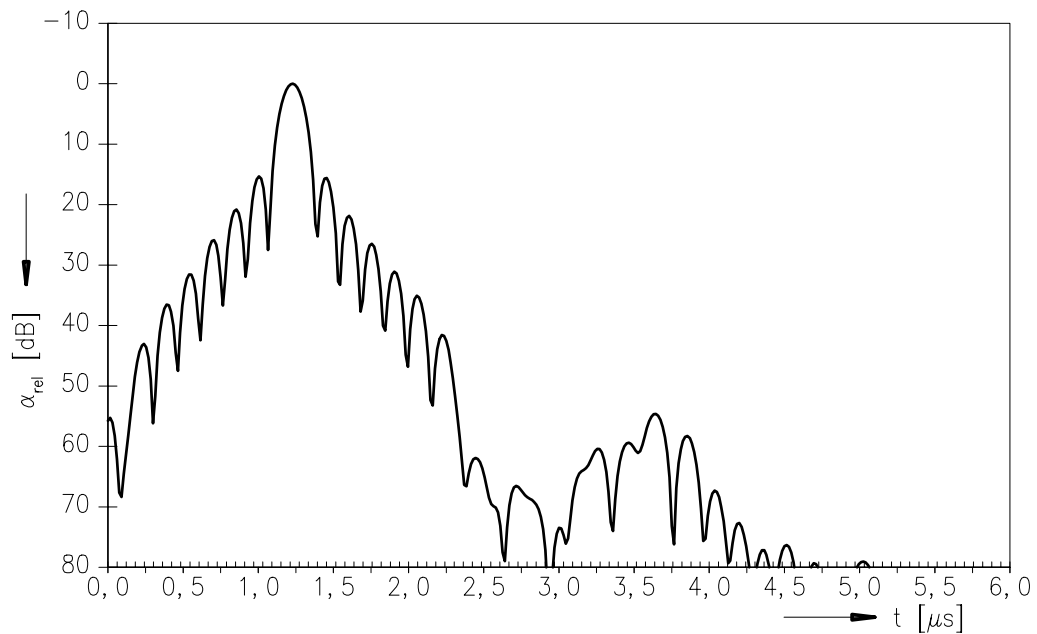
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Frequency response



Time domain response





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE MM PD

P.O. Box 80 17 09, D-81617 München

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