



SAW Components

SAW Bandpass Filter

Bandpass Filter for Digital Cable Applications

Series/type:	X 6761 M
Ordering code:	B39440-X6761-M100
Date:	December 15, 2006
Version:	2.0

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X 6761 M

SAW Bandpass Filter

44.00 MHz

Data Sheet

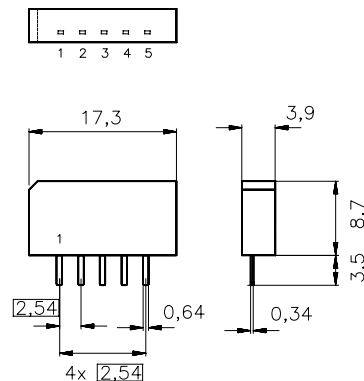
Application

- IF filter for digital cable TV
- Usable bandwidth 6 MHz
- Low Amplitude Ripple
- Low Group Delay Ripple



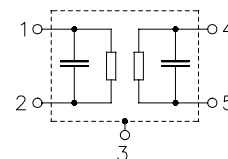
Features

- Plastic package **SIP5K**
- Approximate weight 1.0 g
- RoHS compatible
- Tinned CuFe alloy terminals



Pin configuration

- 1 Input
- 2 Input - ground
- 3 Chip carrier - ground
- 4 Output
- 5 Output



Please read *cautions and warnings and important notes* at the end of this document.



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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. @ 25 °C	max.	
Insertion attenuation α				
Reference level for 44.06 (44.00) MHz the following data	13.7	15.2	16.7	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 (p-p) $\Delta\alpha$				
41.53 ... 46.59 (41.47 ... 46.53) MHz	—	0.3	—	dB
Relative attenuation α_{rel}				
41.06 (41.00) MHz	2.0	3.2	4.4	dB
47.06 (47.00) MHz	1.8	3.0	4.2	dB
47.31 (47.25) MHz	—	7.2	—	dB
39.81 (39.75) MHz	40.0	50.0	—	dB
Lower sidelobe				
35.06 ... 39.81 (35.00 ... 39.75) MHz	39.0	46.0	—	dB
Upper sidelobe				
48.31 ... 50.31 (48.25 ... 50.25) MHz	32.0	38.0	—	dB
50.31 ... 55.06 (50.25 ... 55.00) MHz	42.0	49.0	—	dB
Reflected wave signal suppression				
1.1 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 after main pulse (test pulse 250 ns, carrier frequency 44.06 MHz)	—	50.0	—	dB
Group delay ripple (p-p) $\Delta\tau$				
41.53 ... 46.59 (41.47 ... 46.53) MHz	—	50.0	—	ns
Impedance at 44.00 MHz				
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	1.7 12.2	—	k Ω pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1.6 3.9	—	k Ω pF
Temperature coefficient of frequency TC_f	—	-72	—	ppm/K

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Maximum ratings

Operable temperature range	T	-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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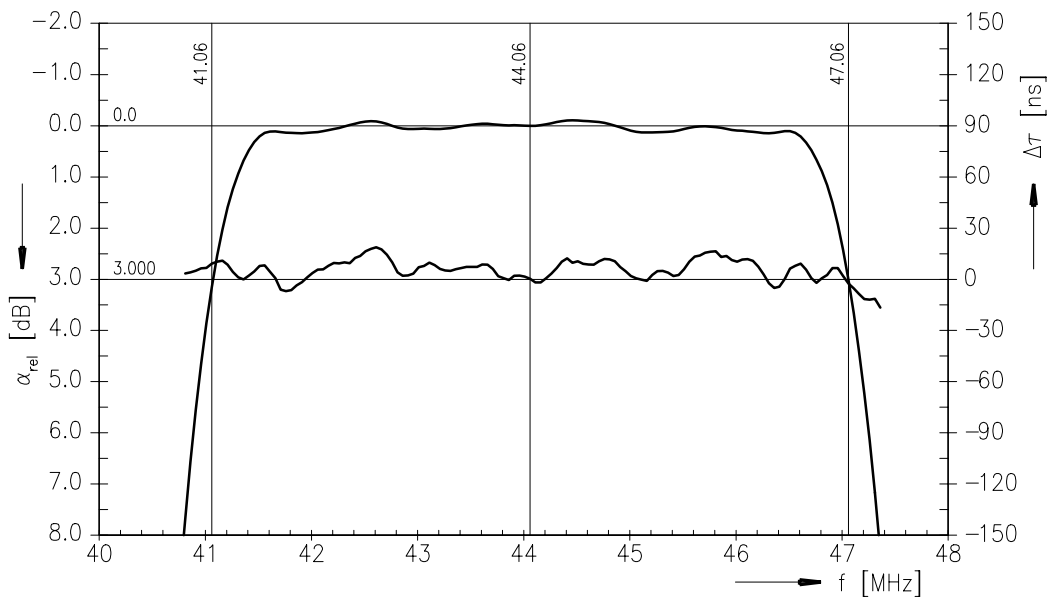
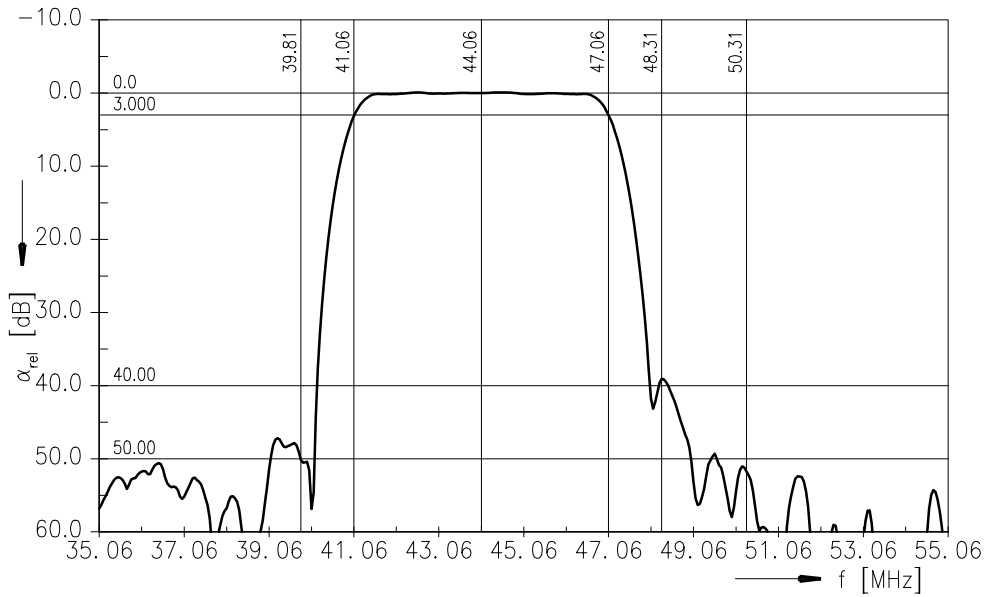
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Frequency response



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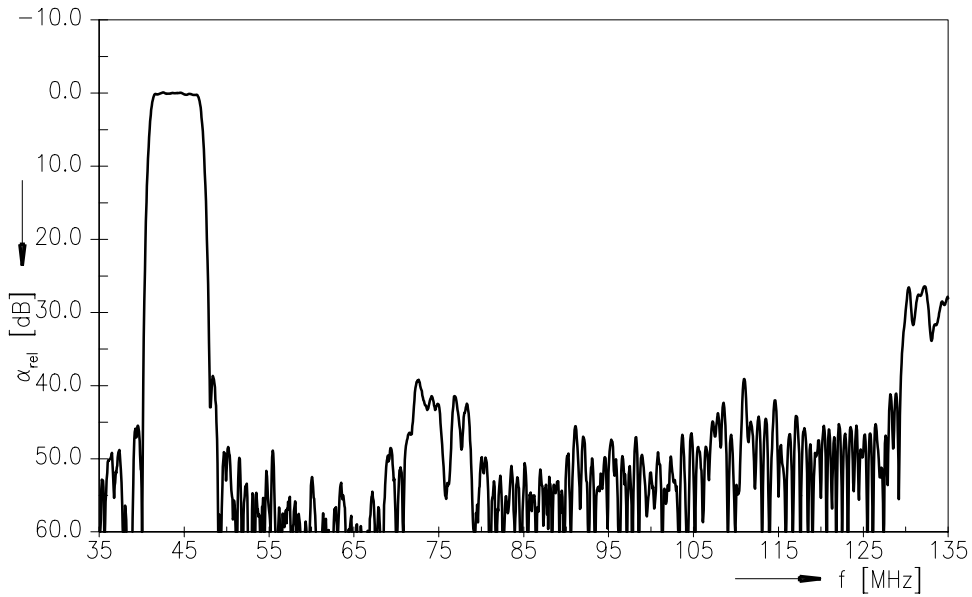
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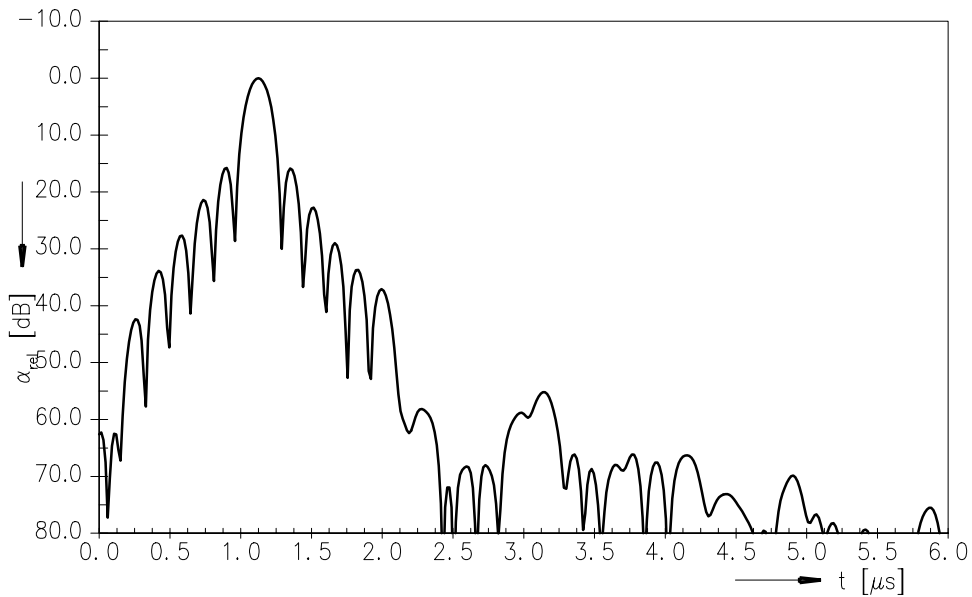
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Frequency response



Time domain response



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Type	X 6761 M	
Ordering code	B39440-X6761-M100	
Marking and package	C61157-A1-A15	
Packaging	F61074-V8067-Z000	
Date codes	L_1126	
S-parameters	X6761M_NB_UN.s4p	
Soldering profile	S_6001	

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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