



SAW Components

SAW bandpass filter

Bandpass IF filters for terrestrial TV applications

Series/type:	X 6796 X
Ordering code:	B39570-X6796-X400
Date:	August 07, 2009
Version:	2.0

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X 6796 X

SAW bandpass filter

57.00 MHz

Data Sheet

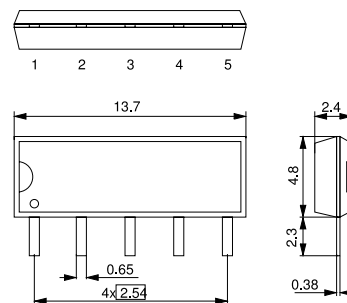
Application

- Standard: ISDB-T
- Uable bandwidth 5.8 MHz
- Constant group delay
- Unbalanced input option



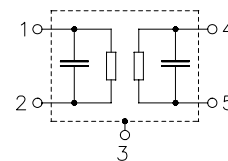
Features

- Duroplast package **SIP5D**
- Standard IC package
- Approximate weight 0.5 g
- RoHS compatible
- Tinned CuFe alloy terminals



Pin configuration

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

	min.	typ. @ 25 °C	max.	
Insertion attenuation α				
Reference level for 57.08 (57.00) MHz the following data	13.3	14.8	16.3	dB
Pass bandwidth				
$\alpha_{\text{rel}} \leq 3 \text{ dB}$ $B_{3\text{dB}}$	—	5.8	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$ $B_{30\text{dB}}$	—	7.1	—	MHz
Relative attenuation α_{rel}				
52.97 (52.89) MHz	26.0	39.0	—	dB
54.05 (53.97) MHz	—	3.0	—	dB
59.80 (59.72) MHz	—	3.0	—	dB
60.47 (60.39) MHz	22.0	33.0	—	dB
Lower sidelobe				
45.08 ...51.80 (45.00 ... 51.72) MHz	34.0	41.0	—	dB
51.81 ...52.97 (51.73 ... 52.89) MHz	28.0	37.0	—	dB
Upper sidelobe				
60.48 ...62.08 (60.40 ... 62.00) MHz	21.0	26.0	—	dB
62.09 ...70.08 (62.01 ... 70.00) MHz	28.0	37.0	—	dB
Reflected wave signal suppression				
1.2 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 57.08 MHz)	42.0	52.0	—	dB
Group delay ripple (p-p) $\Delta\tau$				
Aperture 50kHz 54.05 ...59.80 (53.97 ... 59.72) MHz	—	50	—	ns
Impedance at 57.08 MHz				
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$	—	1.1 \parallel 11.5	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$	—	2.7 \parallel 2.7	—	k Ω \parallel 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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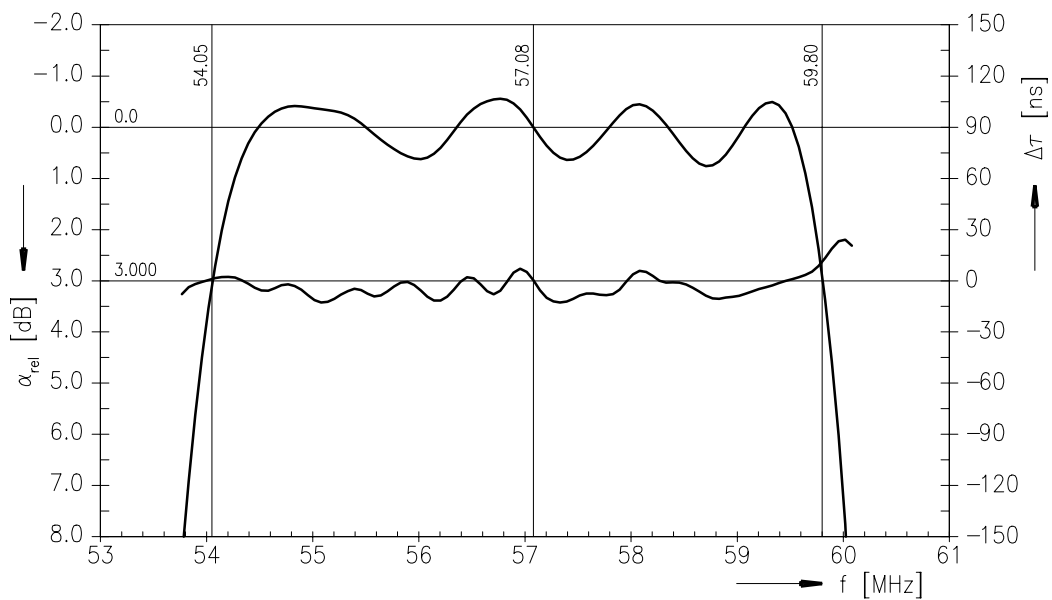
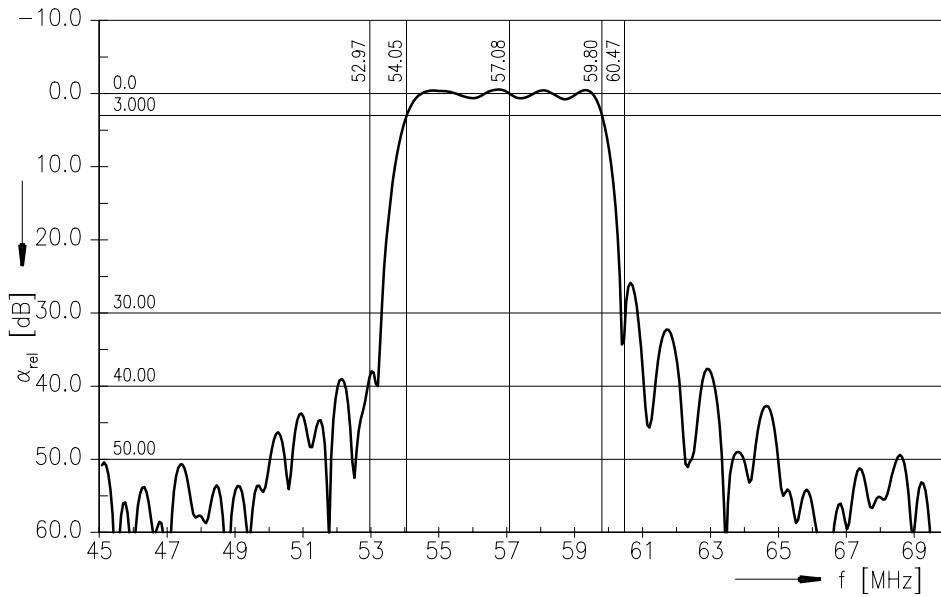
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Data Sheet

Frequency response



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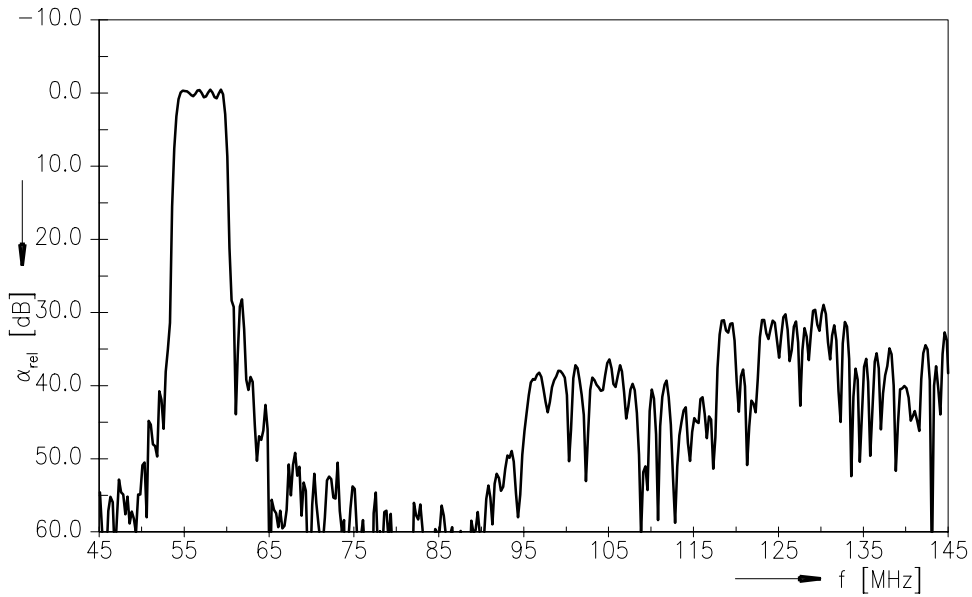
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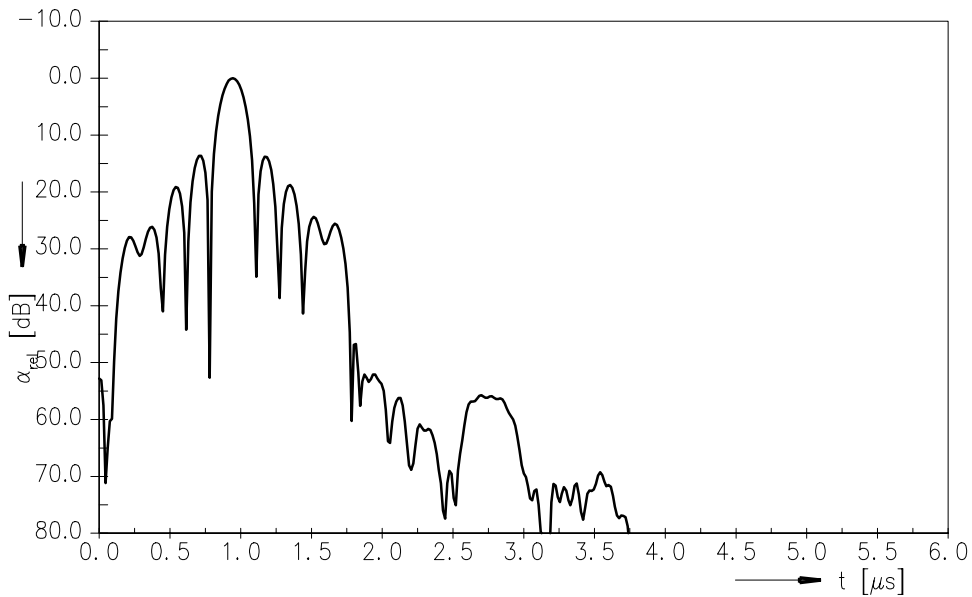
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Frequency response



Time domain response



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Type	X 6796 X
Ordering code	B39570-X6796X-X400
Marking and package	C61157-A1-A22
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	X6796X_NB.s4p
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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

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7 August 07, 2009



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