



# SAW multimedia filters

## Series/Type: X6794D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39440X6794X400		2011-01-14	2011-09-30	2012-09-30

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SAW Components

X 6794 X

SAW bandpass filter

44.00 MHz

### Data Sheet

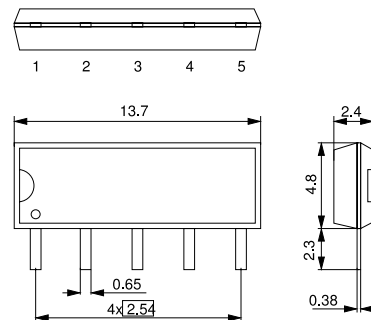
#### Application

- IF filter for ATSC
- Usable bandwidth 5.4 MHz
- Constant group delay
- Suitable for single use and cascade of two device
- Unbalanced input option



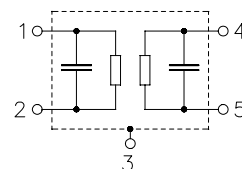
#### Features

- Duroplast package **SIP5D**
- Approximate weight 0.5 g
- Standard IC package
- 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:  $T_A = 25 (45) \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

	<b>min.</b>	<b>typ. @ 25 °C</b>	<b>max.</b>	
<b>Insertion attenuation</b> $\alpha$				
Reference level for 44.06 (44.00) MHz the following data	16.7	18.2	19.7	dB
<b>Amplitude ripple (p-p)</b> $\Delta\alpha$				
41.66 ... 46.46 (41.60 ... 46.40) MHz	—	0.8	—	dB
<b>Relative attenuation</b> $\alpha_{rel}$				
39.81 (39.75) MHz	30.0	44.0	—	dB
41.06 (41.00) MHz	—	7.3	—	dB
41.37 (41.31) MHz	—	2.0	—	dB
46.75 (46.69) MHz	—	2.9	—	dB
47.06 (47.00) MHz	—	9.3	—	dB
47.31 (47.25) MHz	16.0	21.0	—	dB
<b>Lower sidelobe</b>				
35.06 ... 38.80 (35.00 ... 38.74) MHz	36.0	42.0	—	dB
38.80 ... 39.81 (38.74 ... 39.75) MHz	29.0	35.0	—	dB
<b>Upper sidelobe</b>				
47.41... 50.11 (47.35 ... 50.05) MHz	22.0	28.0	—	dB
50.11 ... 55.06 (50.05 ... 55.00) MHz	36.0	41.0	—	dB
<b>Reflected wave signal suppression</b>				
1.2 $\mu\text{s}$ ... 6.0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 44.06 MHz)	45.0	55.0	—	dB
<b>Group delay ripple (p-p)</b> $\Delta\tau$				
41.37 ... 46.75 (41.31 ... 46.69) MHz	—	50	—	ns
<b>Impedance at 44.06 MHz</b>				
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	2.9 $\parallel$ 7.6	—	k $\Omega$ $\parallel$ pF
Input: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	2.9 $\parallel$ 2.7	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b> $TC_f$	—	-72	—	ppm/K



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**Maximum ratings**

Operable temperature range	T	-25 / +65	°C	
Storage temperature range	T <sub>stg</sub>	-40 / +85	°C	
DC voltage	V <sub>DC</sub>	5	V	between any terminals
AC voltage	V <sub>pp</sub>	10	V	between any terminals



SAW Components

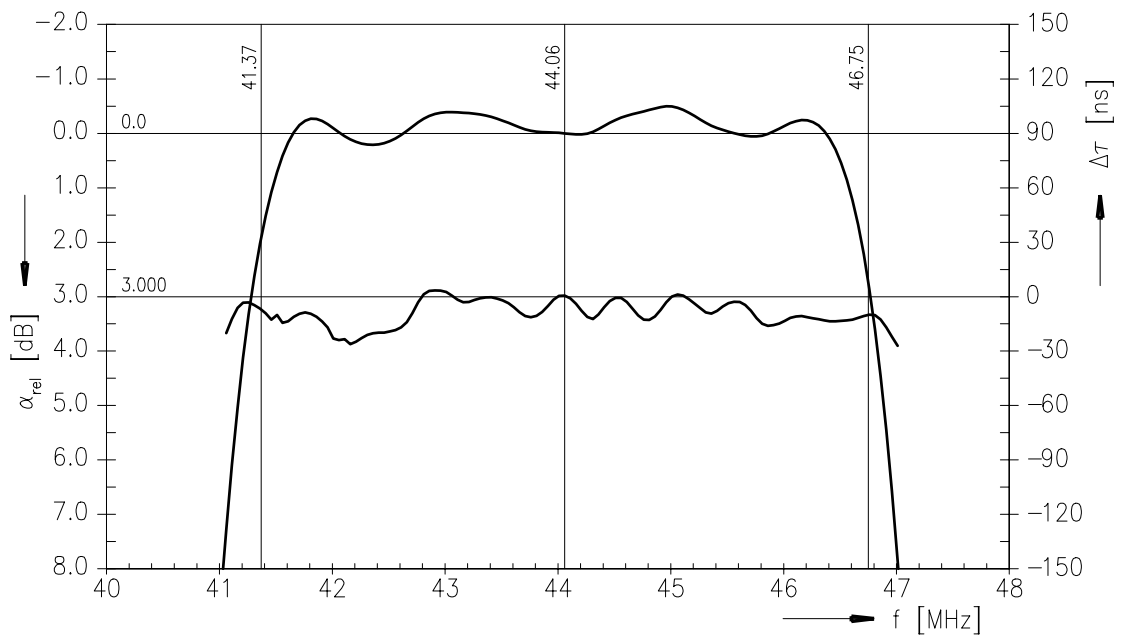
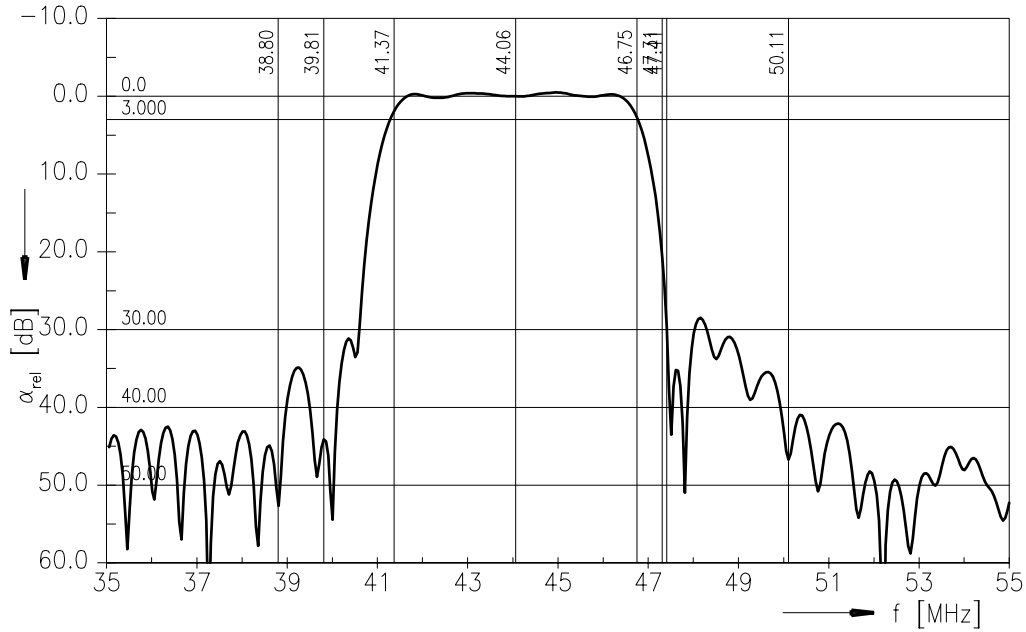
X 6794 X

SAW bandpass filter

44.00 MHz

Data Sheet

Frequency response



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SAW Components

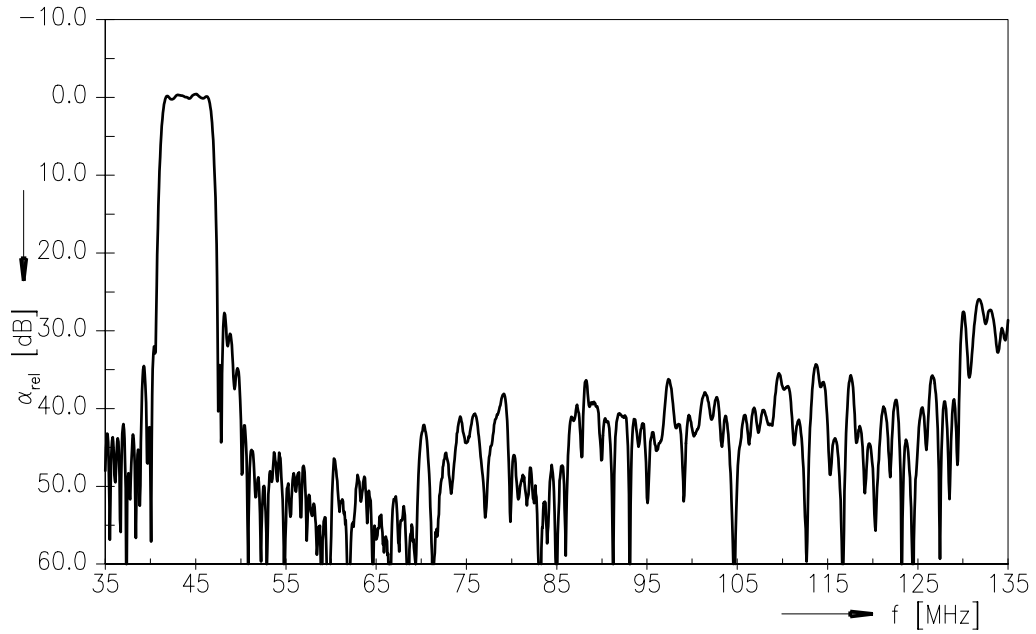
X 6794 X

SAW bandpass filter

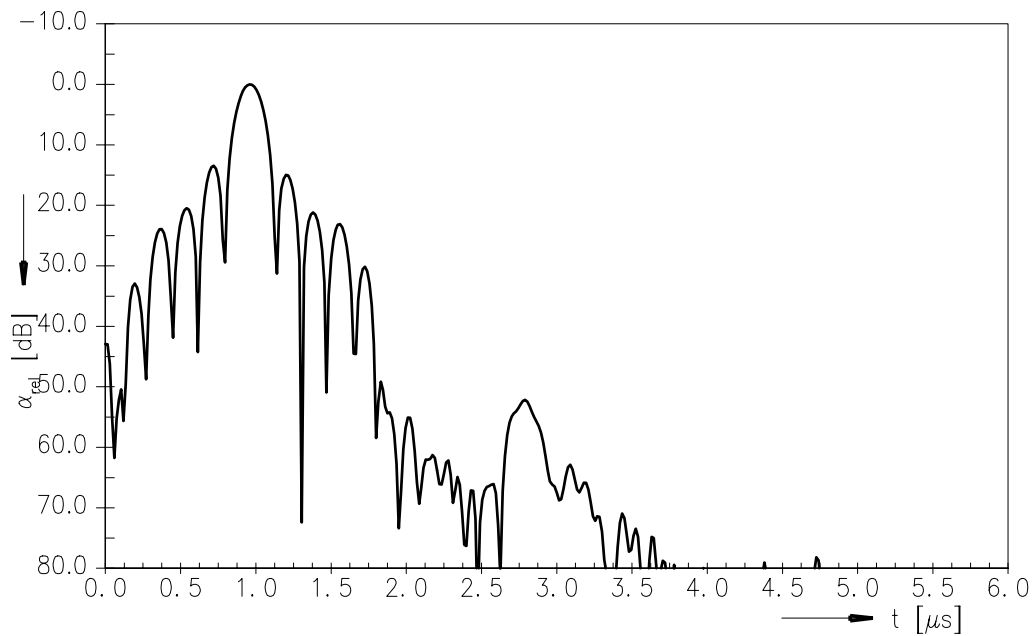
44.00 MHz

Data Sheet

Frequency response



Time domain response



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<b>SAW bandpass filter</b>	<b>44.00 MHz</b>

Data Sheet

References

<b>Type</b>	X 6794 X
<b>Ordering code</b>	B39440-X6794-X400
<b>Marking and package</b>	C61157-A1-A22
<b>Packaging</b>	F61074-V8049-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	X6794X_NB.s4p
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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."

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Published by EPCOS AG  
Surface Acoustic Wave Components Division  
P.O. Box 80 17 09, 81617 Munich, GERMANY

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