



SAW Components

SAW bandpass filter

Bandpass filters for terrestrial TV applications

Series/type:	X 6764 D
Ordering code:	B39440-X6764-N201
Date:	June 14, 2006
Version:	2.0

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SAW Components

X 6764 D

SAW bandpass filter

44.00 MHz

Data sheet

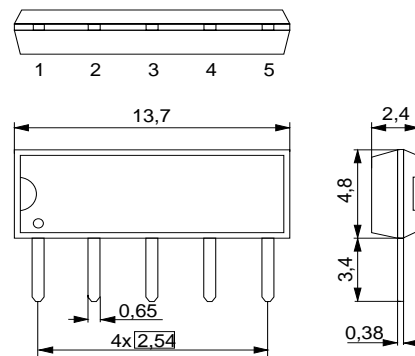
Application

- IF filter for ATSC
- Usable bandwidth 5.5MHz
- Constant group delay
- Suitable for single use and cascade of two devices
- Balance input option



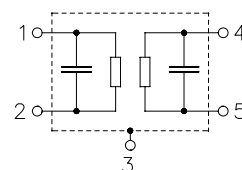
Features

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



Pin configuration

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




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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 44.06 (44.00) MHz the following data	16.8	18.3	19.8	dB
Amplitude ripple (p-p) $\Delta\alpha$				
41.66 ... 46.46 (41.60 ... 46.40) MHz	—	0.8	—	dB
Relative attenuation α_{rel}				
39.81 (39.75) MHz	30.0	42.0	—	dB
41.06 (41.00) MHz	—	9.5	—	dB
41.37 (41.31) MHz	1.3	2.3	3.3	dB
46.75 (46.69) MHz	1.4	2.4	3.4	dB
47.06 (47.00) MHz	—	9.5	—	dB
47.31 (47.25) MHz	17.0	23.0	—	dB
Lower sidelobe				
35.06 ... 37.06 (35.00 ... 37.00) MHz	35.0	42.0	—	dB
37.06 ... 39.41 (37.00 ... 39.35) MHz	30.0	42.0	—	dB
Upper sidelobe				
47.71 ... 50.06 (47.65 ... 50.00) MHz	24.0	30.0	—	dB
50.06 ... 55.06 (50.00 ... 55.00) MHz	32.0	40.0	—	dB
Reflected wave signal suppression				
1.2 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 44.06 MHz)	—	50.0	—	dB
Group delay ripple (p-p) $\Delta\tau$				
41.37 ... 46.75 (41.31 ... 46.69) MHz	—	60	—	ns
Impedance at 44.06 MHz				
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$	—	2.2 \parallel 11.3	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$	—	3.1 \parallel 2.5	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f	—	-72	—	ppm/K

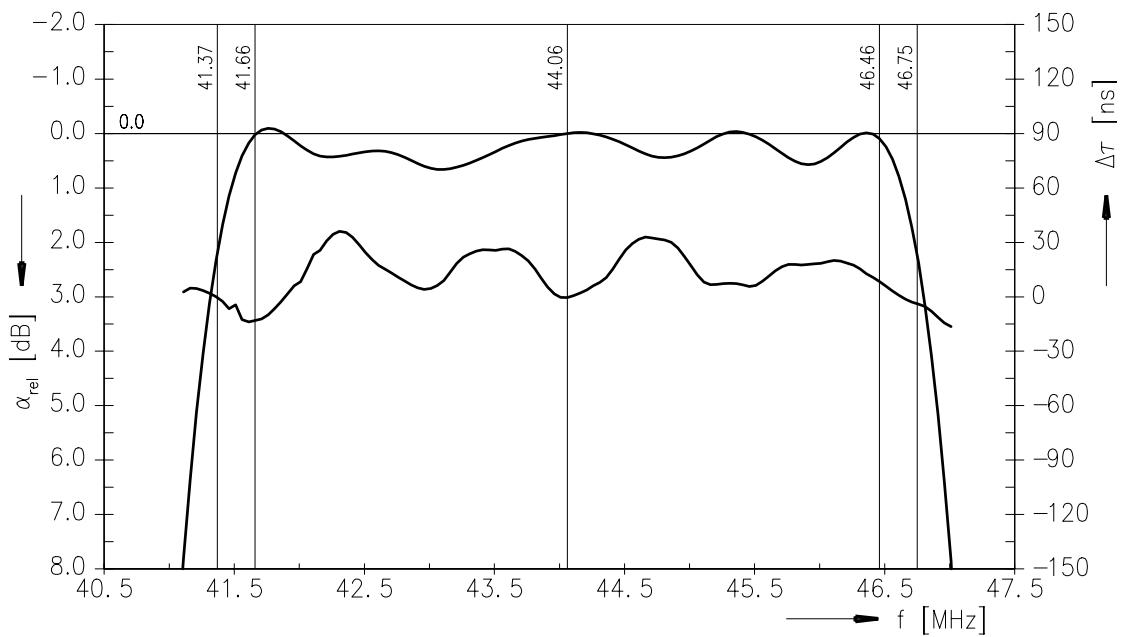
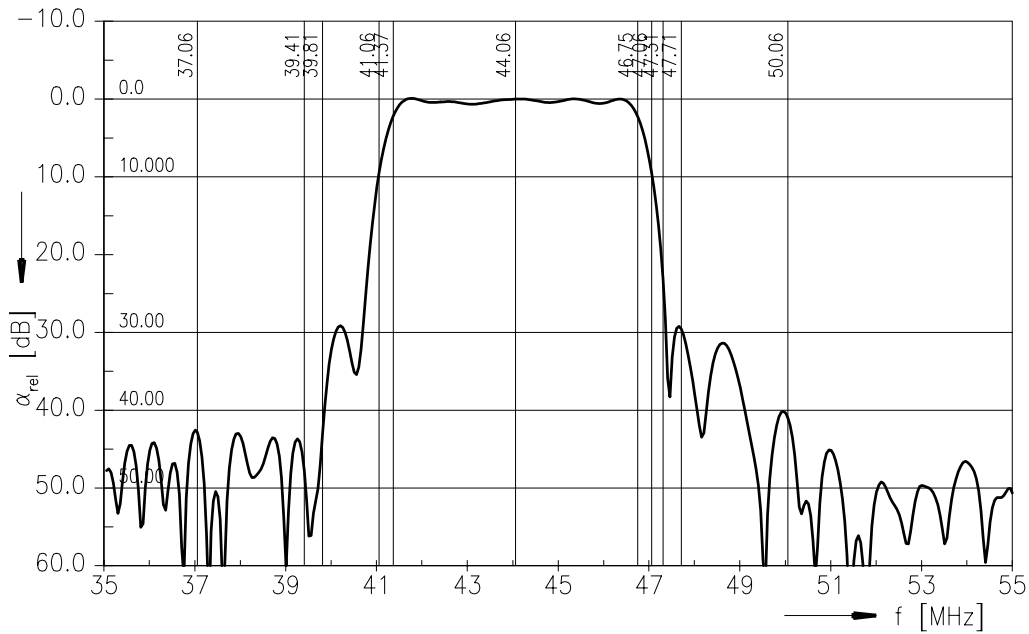
Maximum ratings

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



Data sheet

Frequency response





SAW Components

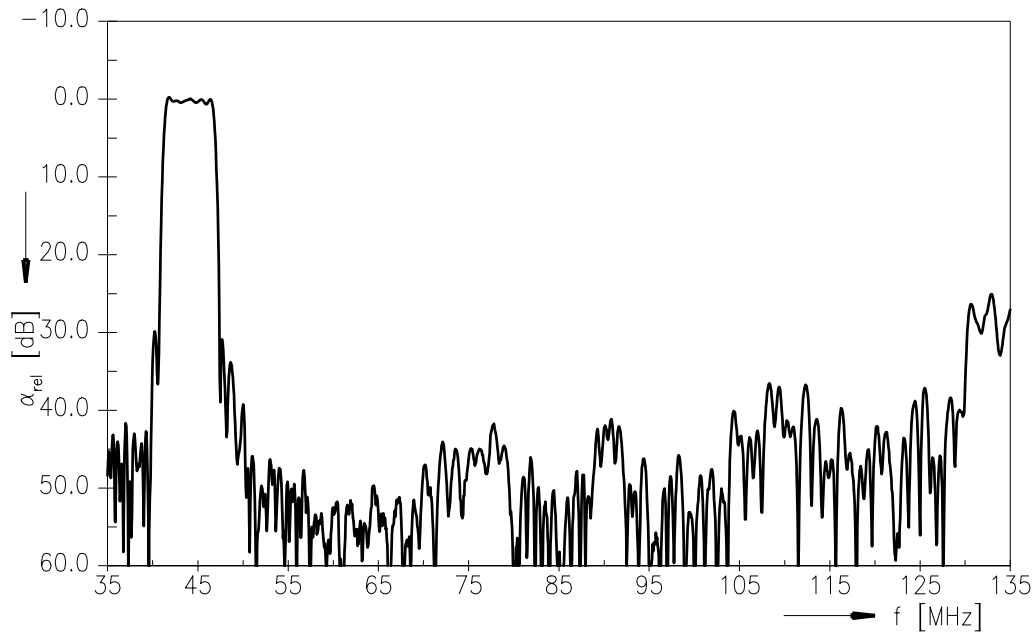
X 6764 D

SAW bandpass filter

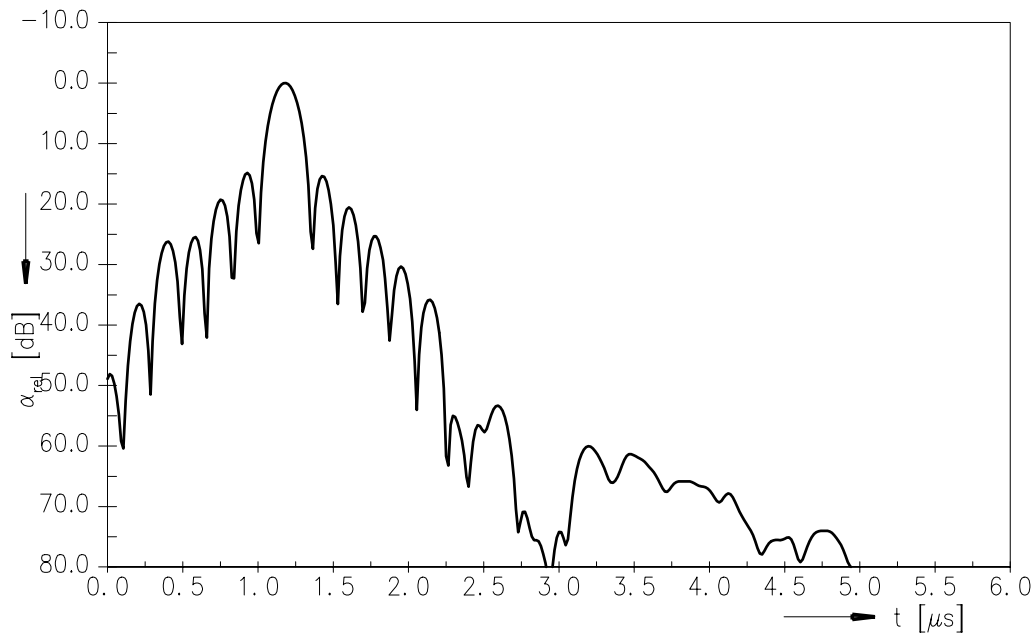
44.00 MHz

Data sheet

Frequency response



Time domain response





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X 6764 D

SAW bandpass filter

44.00 MHz

Data sheet

References

Type	X 6764 D
Ordering code	B39440-X6764-N201
Marking and package	C61157-A1-A21
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	X6764N_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."

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