



SAW Components

Data Sheet





SAW Components

X 7303 P

Bandpass Filter

44,00 MHz

Data Sheet



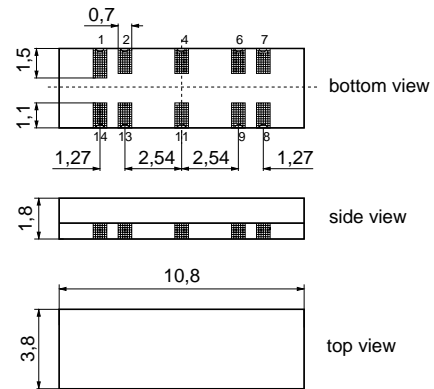
Standard

Polymer package **DOC14A**

- HDTV

Features

- Constant group delay
- Optimized for cascade of two devices
- Unbalanced input option
- **Surface Mounted Technology (SMT)**



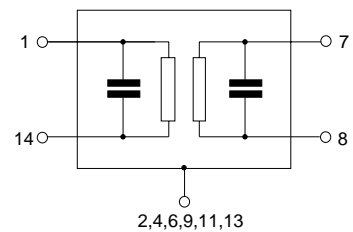
Terminals

- Gold plated

Dimensions in mm, approx. weight 0,14 g

Pin configuration

- 1 Input
- 14 Input
- 4,9,11,13 Case – ground
- 2,6 Ground
- 7 Output
- 8 Output



Type	Ordering code	Marking and package according to	Packing according to
X 7303 P	B39440-X7303-P200	C61157-A5-A1	F61074-V8188-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	0	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics

Reference temperature:

$$T_A = 25 \text{ }^\circ\text{C}$$

Terminating source impedance:

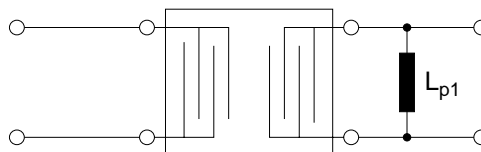
$$Z_S = 50 \text{ } \Omega$$

Terminating load impedance:

$$Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF and matching network}$$

		min.	typ.	max.	
Insertion attenuation					
Reference level for the following data	44,00 MHz	18,0	19,5	21,0	dB
Amplitude ripple (p-p)					
	41,60 ... 46,40 MHz	—	1,0	—	dB
Relative attenuation					
	40,75 MHz	22,0	28,0	—	dB
	41,35 MHz	0,9	1,9	2,9	dB
	41,60 MHz	-0,7	0,3	1,3	dB
	46,40 MHz	-1,0	0,0	1,0	dB
	46,65 MHz	0,9	1,9	2,9	dB
	47,25 MHz	22,0	29,0	—	dB
Lower sidelobe	35,00 ... 39,50 MHz	28,0	34,0	—	dB
	39,50 ... 40,20 MHz	29,0	35,0	—	dB
Upper sidelobe	47,65 ... 48,50 MHz	24,0	29,0	—	dB
	48,50 ... 55,00 MHz	29,0	35,0	—	dB
Reflected wave signal suppression					
1,5 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 44,00 MHz)		42,0	54,0	—	dB
Group delay ripple (p-p)					
	41,35 ... 46,65 MHz	—	70	—	ns
Impedance at 44,00 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	3,6 \parallel 14,7	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	8,8 \parallel 4,3	—	k Ω \parallel pF
Temperature coefficient of frequency					
TC_f		—	-18	—	ppm/K

Matching network:



$$L_{p1} = 1800 \text{ nH}$$



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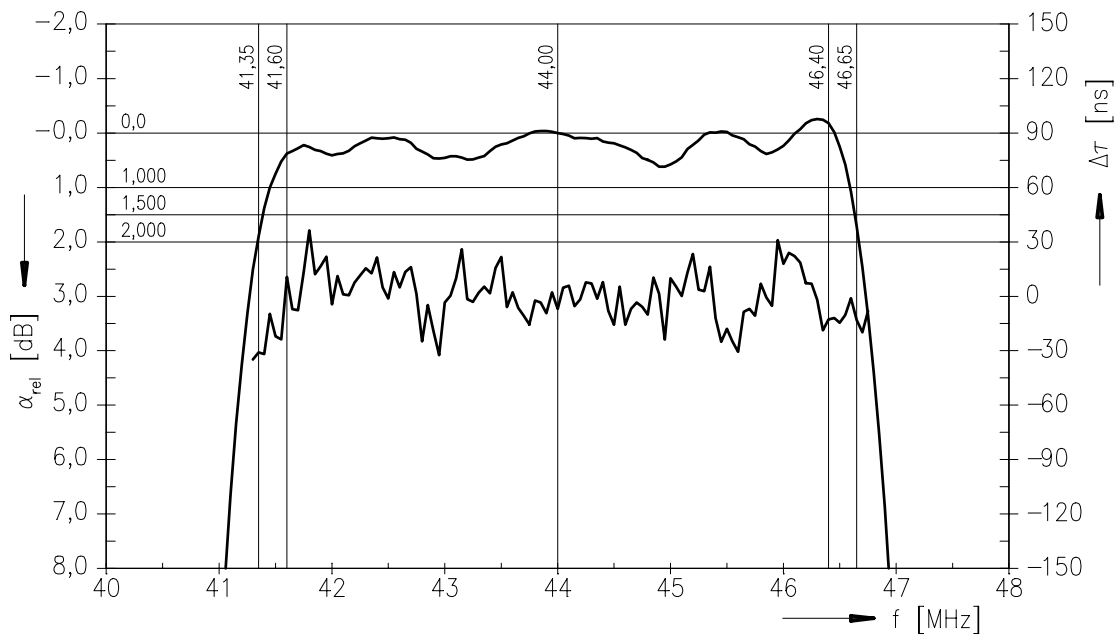
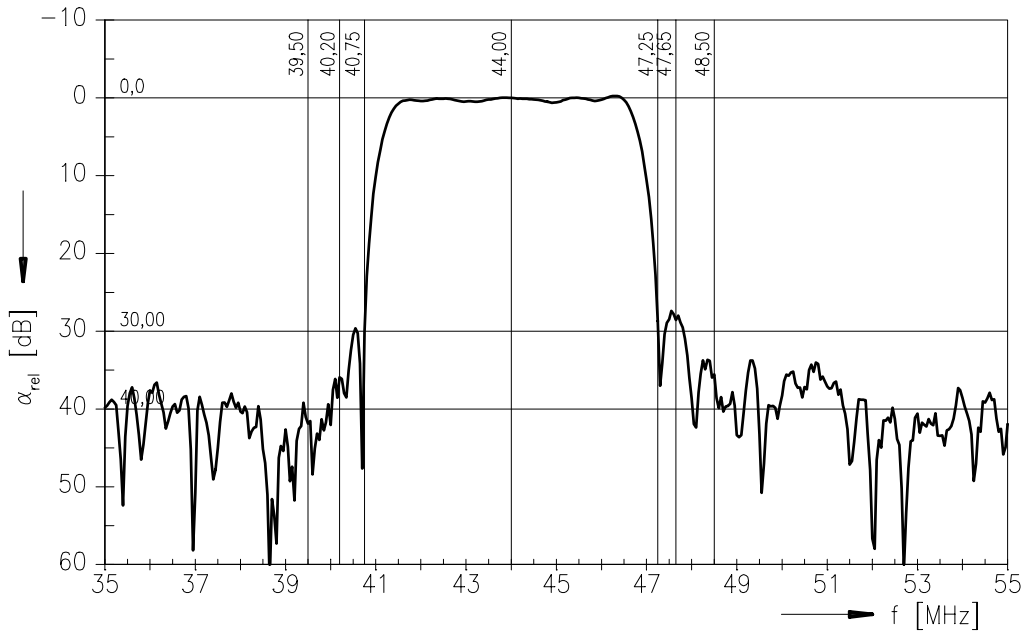
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Frequency response





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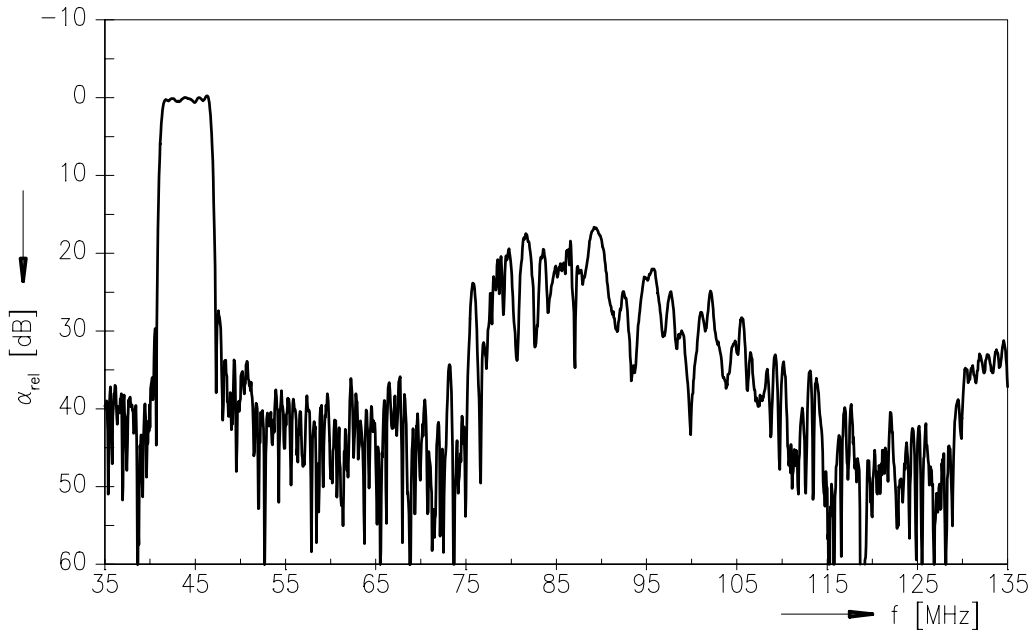
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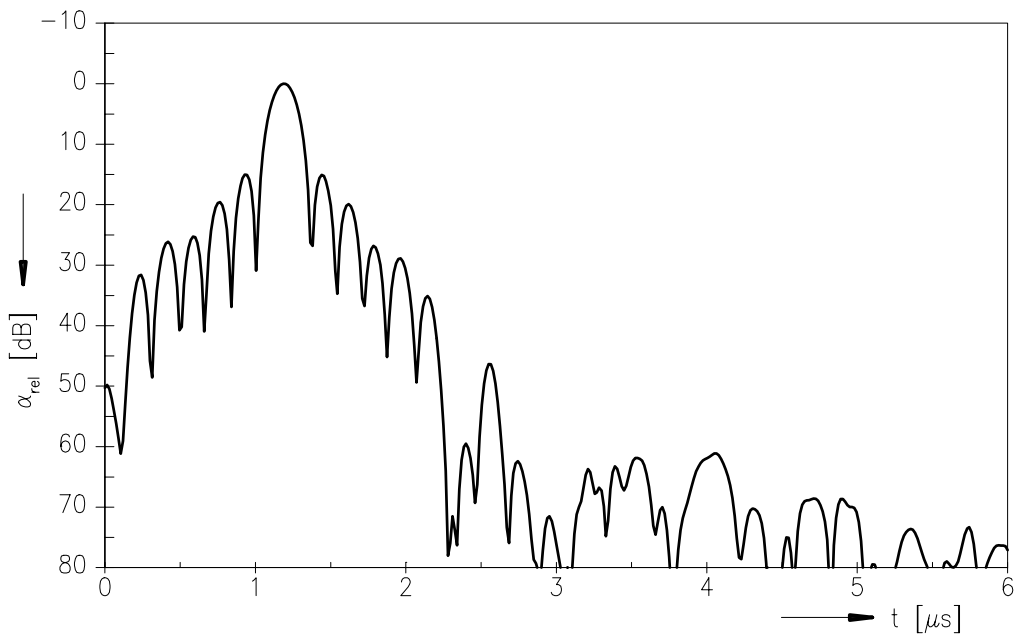
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Frequency response



Time domain response





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