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# SAW Components

Data Sheet





<b>SAW Components</b>	<b>X 7303 P</b>
<b>Bandpass Filter</b>	<b>44,00 MHz</b>

Data Sheet



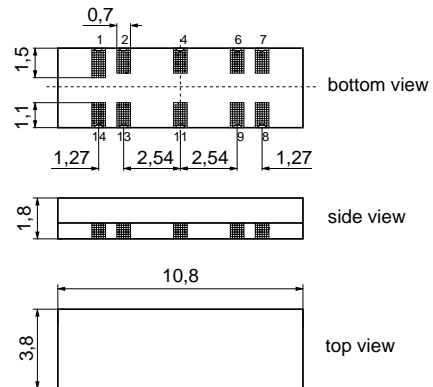
**Standard**

- HDTV

Polymer package **DOC14A**

**Features**

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



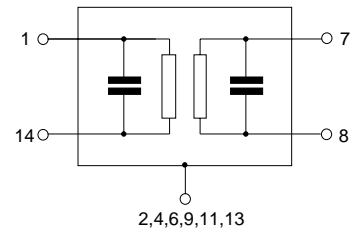
**Terminals**

- 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



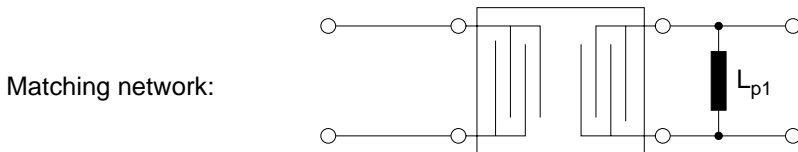
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**Characteristics**

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$  and matching network

		min.	typ.	max.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	44,00 MHz	18,0	19,5	21,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	41,60 ... 46,40 MHz	—	1,0	—	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
	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
<b>Reflected wave signal suppression</b>					
1,5 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 44,00 MHz)		42,0	54,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
	41,35 ... 46,65 MHz	—	70	—	ns
<b>Impedance at 44,00 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	3,6 $\parallel$ 14,7	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	8,8 $\parallel$ 4,3	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-18	—	ppm/K



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



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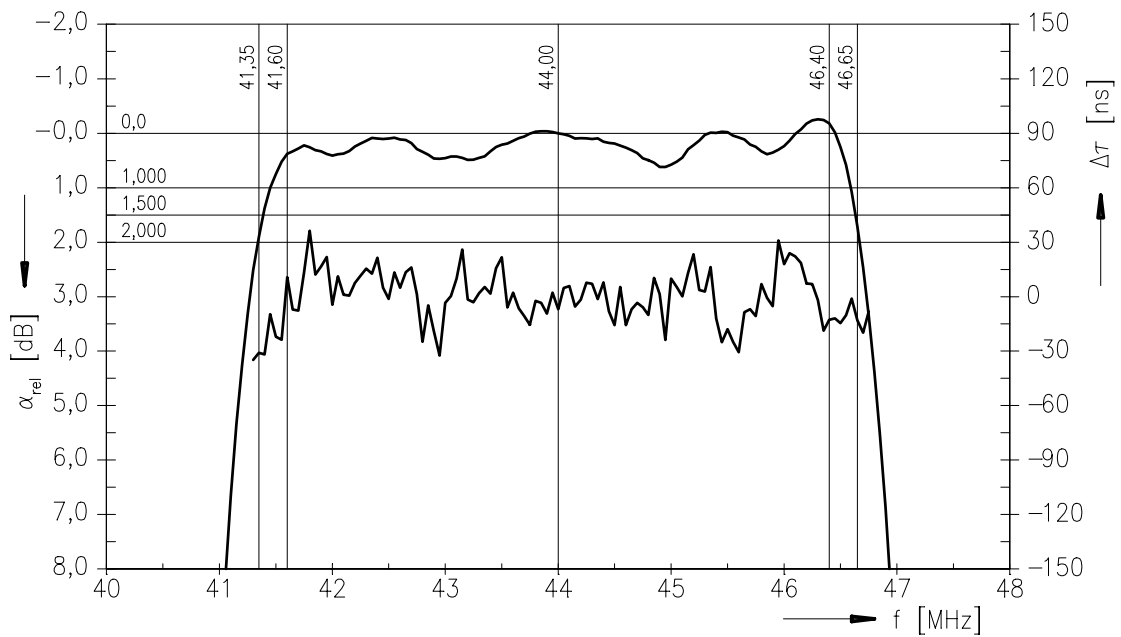
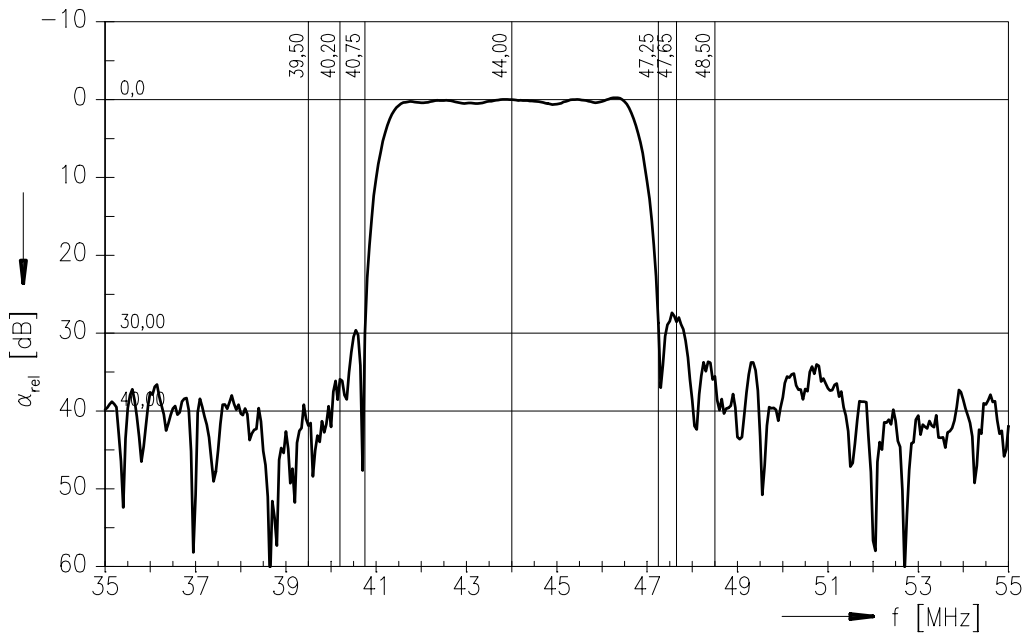
Bandpass Filter

44,00 MHz

Data Sheet



Frequency response



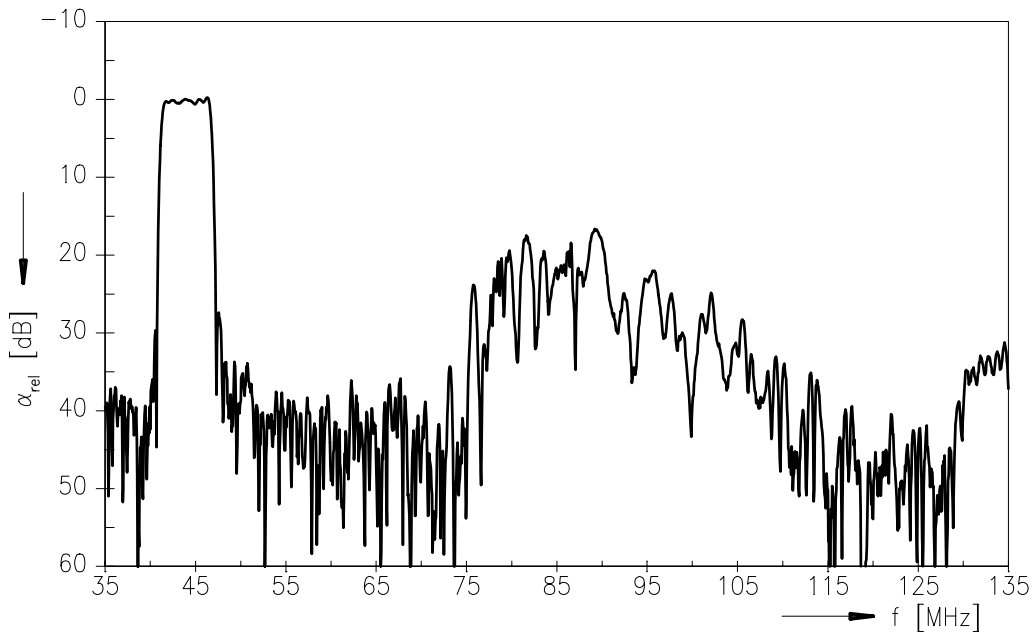


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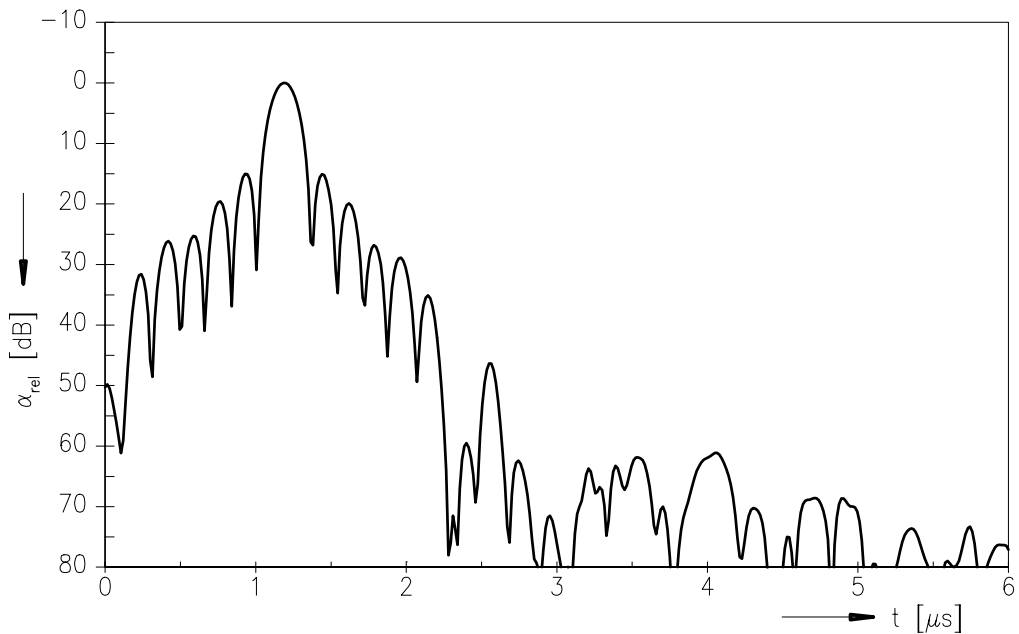
Data Sheet



**Frequency response**



**Time domain response**





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