



# SAW Components

Data Sheet X 7001 L





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IF Bandpass Filter

30,72 MHz

Data Sheet

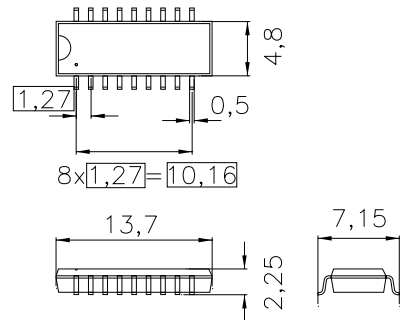
Duroplast package **DIP18D**

**Features**

- IF filter for Digital Audio Broadcasting
- Constant group delay
- **Surface Mounted Technology (SMT)**
- Standard IC small outline (SO) package

**Terminals**

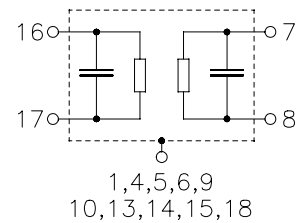
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

**Pin configuration**

- 16,17 Input
- 7,8 Output
- 1,4,5,6,9,10,13,14,15,18 Chip carrier - ground
- 2,3,11,12 Not connected



Type	Ordering code	Marking and package according to	Packing according to
X 7001 L	B39307-X7001-L100	C61157-A2-A4	F61074-V8058-Z000

**Maximum ratings**

Operable temperature range	$T_A$	-40/+85	°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:  $Z_S = 150\ \Omega$   
 Terminating load impedance:  $Z_L = 1\text{ k}\Omega$

		min.	typ.	max.	
<b>Center frequency</b> (center between 3 dB points)	$f_C$	—	30,72	—	MHz
<b>Insertion attenuation</b> Reference level for the following data	$\alpha$ 30,72 MHz	19,3	20,8	22,3	dB
<b>Pass bandwidth</b>					
$\alpha_{rel} \leq 3\text{ dB}$	$B_{3dB}$	—	1,6	—	MHz
$\alpha_{rel} \leq 20\text{ dB}$	$B_{20dB}$	—	2,4	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	$B_{30dB}$	—	2,6	—	MHz
<b>Relative attenuation</b>	$\alpha_{rel}$				
Lower sidelobe	22,00 ... 27,92 MHz	40,0	47,0	—	dB
	27,92 ... 28,82 MHz	37,0	44,0	—	dB
Lower sidelobe	32,62 ... 42,00 MHz	40,0	47,0	—	dB
<b>Reflected wave signal suppression</b> 1,6 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 30,72 MHz)		38,0	45,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
Aperture 50 kHz	29,95 ... 31,49 MHz	—	50	—	ns
<b>Impedance at 30,72 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2,0 $\parallel$ 19,8	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,5 $\parallel$ 10,1	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-18	—	ppm/K



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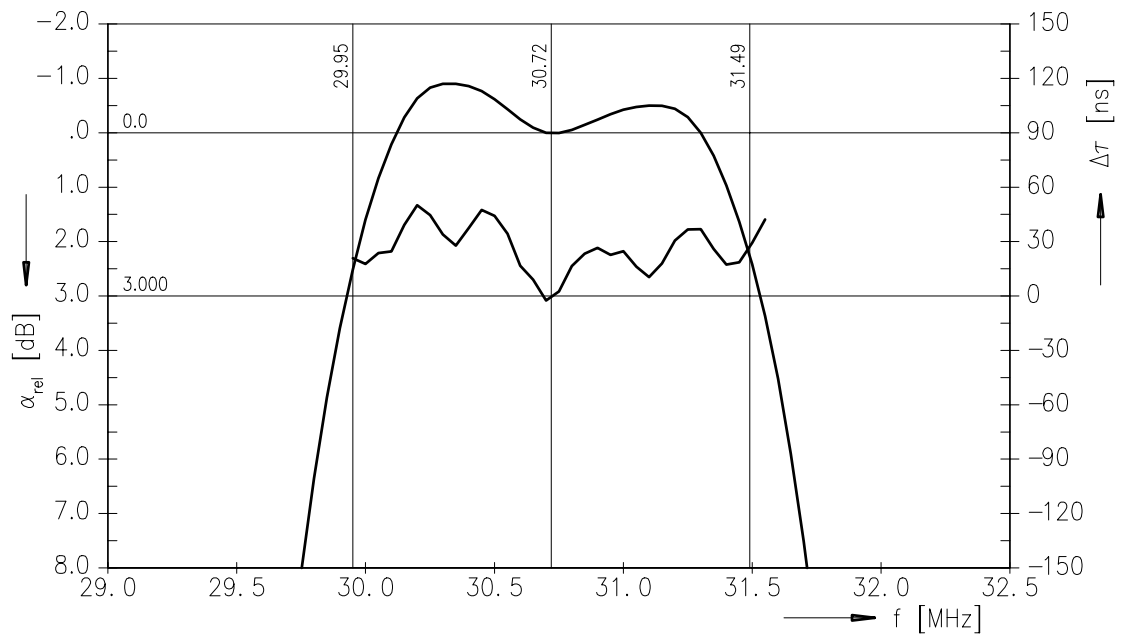
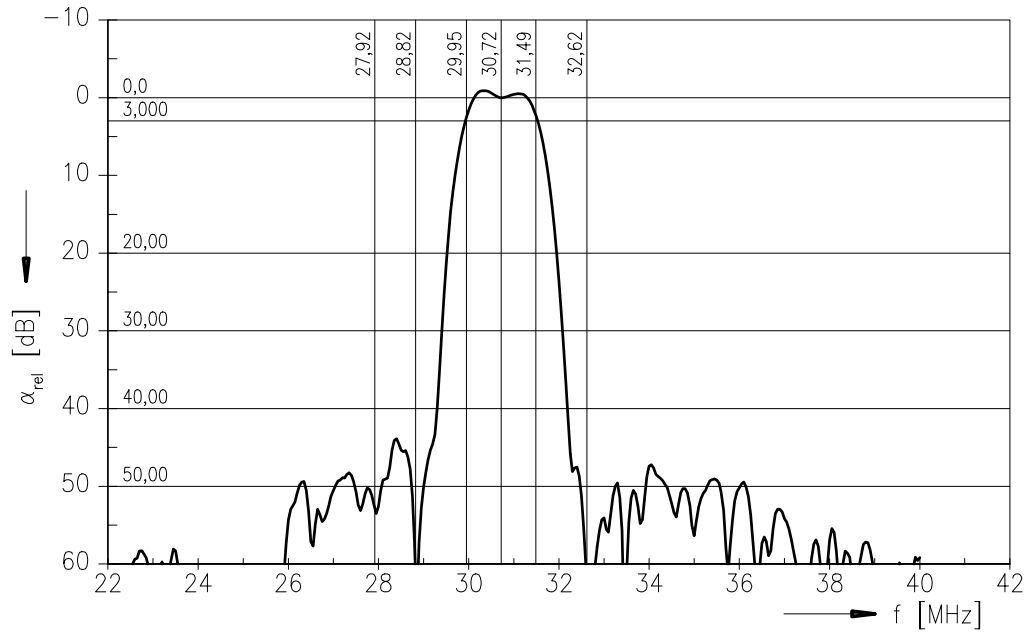
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Frequency response





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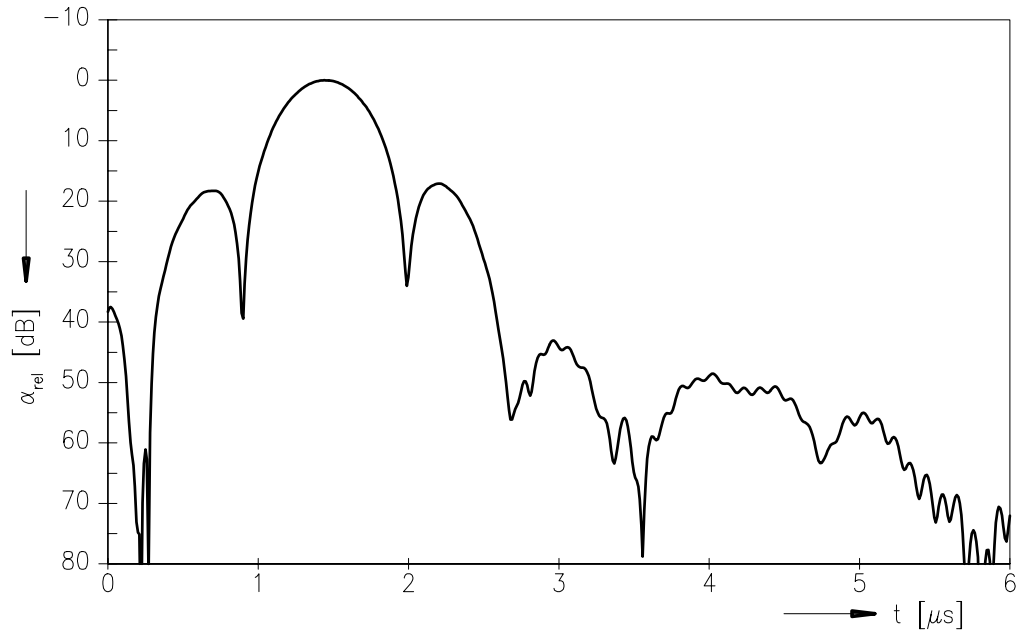
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Time domain response





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