



# SAW Components

Data Sheet K 7268 D





**SAW Components**

**K 7268 D**

**IF Filter for Intercarrier / Multistandard Applications**

**33,90 Mhz and 38,90 Mhz**

**Data Sheet**

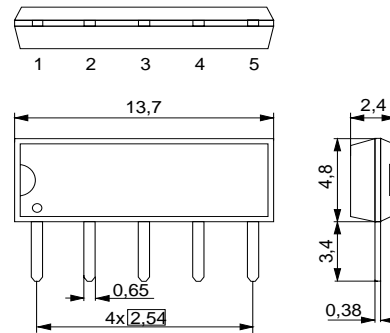
**Standard**

- B/G
- D/K
- I
- L, L'
- M/N

Duroplast package **SIP5D**

**Features**

- TV IF filter switchable from L,L' mode to M/N mode
- L,L' mode with Nyquist slopes at 33,90 MHz and at 38,90 MHz
- Constant group delay
- M/N mode with Nyquist slope and sound shelf at 34,40 MHz
- Constant group delay
- Suitable for CENELEC EN 55020
- Standard IC package



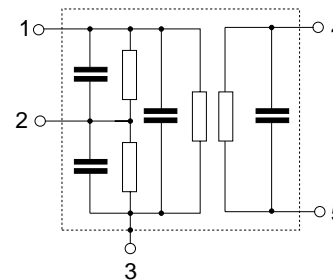
Dimensions in mm, approx. weight 0,5 g

**Terminals**

- Tinned CuFe alloy

**Pin configuration**

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



Type	Ordering code	Marking and package according to	Packing according to
K 7268 D	B39389-K7268-N201	C61157-A1-A21	F61074-V8049-Z000

**Maximum ratings**

Operable temperature range	$T_A$	-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


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**Characteristics in L,L' mode (switching pin 2 connected to ground)**

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

		min.	typ.	max.		
<b>Insertion attenuation</b>	$\alpha$					
Reference level for the following data	37,40 MHz	13,4	14,9	16,4	dB	
<b>Relative attenuation</b>	$\alpha_{rel}$					
Picture carrier	38,90 MHz	5,2	6,2	7,2	dB	
	33,90 MHz	—	6,0	—	dB	
	Color carrier	34,47 MHz	-0,2	0,8	1,8	dB
	Sound carrier	33,40 MHz	17,3	19,8	—	dB
		32,40 MHz	46,0	54,0	—	dB
Adjacent picture carrier	32,90 MHz	—	56,0	—	dB	
	30,90 MHz	44,0	52,0	—	dB	
	31,90 MHz	44,0	50,0	—	dB	
Adjacent sound carrier	40,15 MHz	40,0	49,0	—	dB	
	40,40 MHz	46,0	58,0	—	dB	
	40,90 MHz	46,0	56,0	—	dB	
Lower sidelobe	25,00 ... 32,40 MHz	40,0	49,0	—	dB	
Upper sidelobe	40,40 ... 45,00 MHz	39,0	44,0	—	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 37,40 MHz)		42,0	50,0	—	dB	
<b>Feedthrough signal suppression</b>						
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB	
<b>Group delay ripple (p-p)</b>	$\Delta\tau$	—	40	—	ns	
<b>Impedance at 37,40 MHz</b>						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,1 $\parallel$ 15,3	—	k $\Omega$ $\parallel$ pF	
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,5 $\parallel$ 4,5	—	k $\Omega$ $\parallel$ pF	
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K	



Data Sheet

Characteristics in M/N mode (switching pin 2 connected to pin 1)

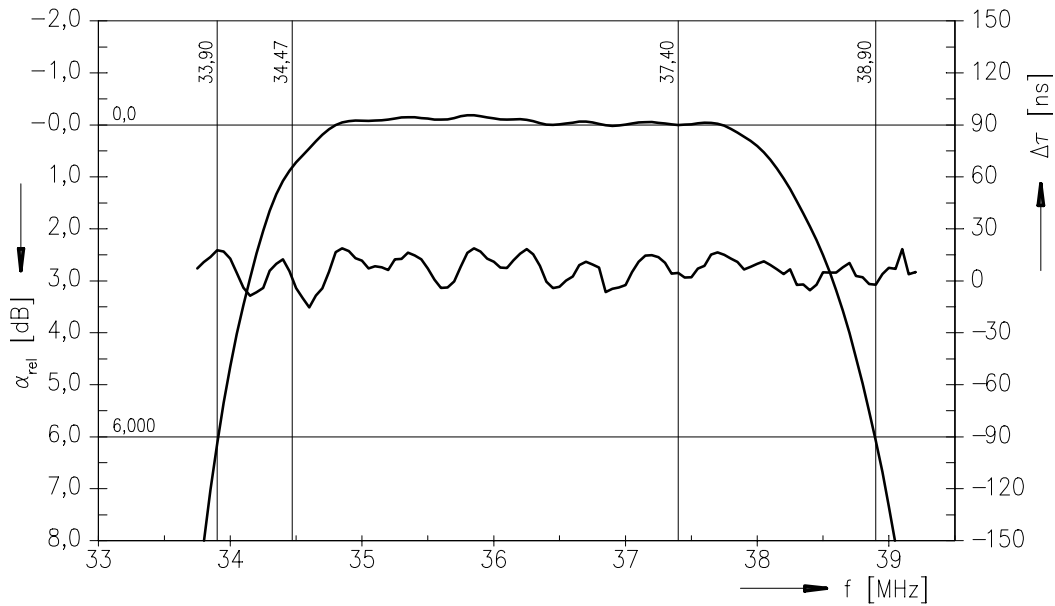
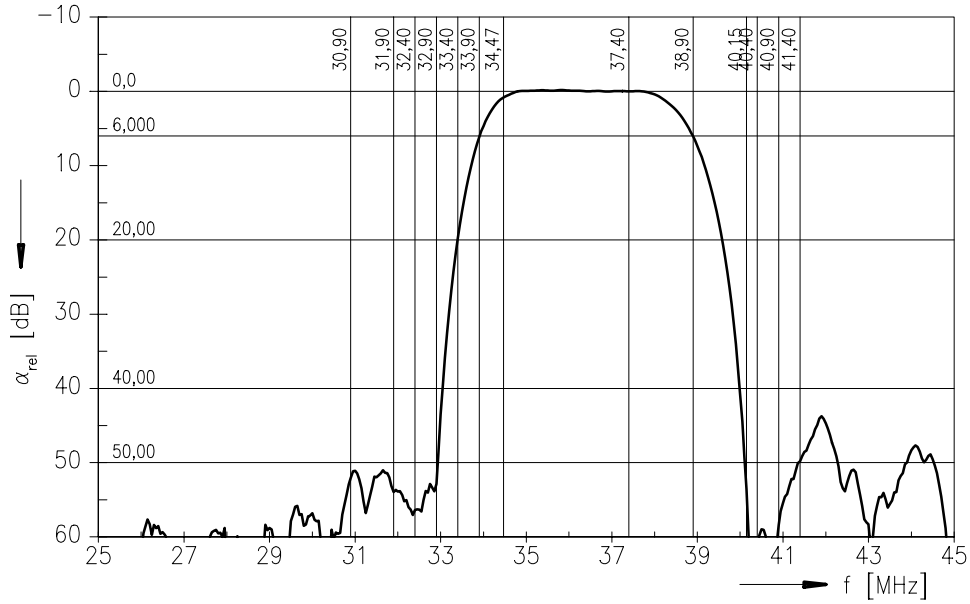
Reference temperature:  $T_A = 25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\ \text{k}\Omega \parallel 3\ \text{pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	37,40 MHz	13,0	14,5	16,0	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Picture carrier	38,90 MHz	5,5	6,5	7,5	dB
Color carrier	35,32 MHz	1,7	2,7	3,7	dB
Sound carrier	34,40 MHz	15,4	16,9	18,4	dB
Adjacent picture carrier	32,90 MHz	42,0	46,0	—	dB
Adjacent sound carrier	40,40 MHz	40,0	46,0	—	dB
Lower sidelobe	25,00 ... 32,80 MHz	40,0	46,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	38,0	44,0	—	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 37,40 MHz)		42,0	50,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) (test pulse 250 ns,		50,0	56,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$	—	40	—	ns
<b>Impedance at 37,40 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,1 $\parallel$ 19,0	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,5 $\parallel$ 4,5	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



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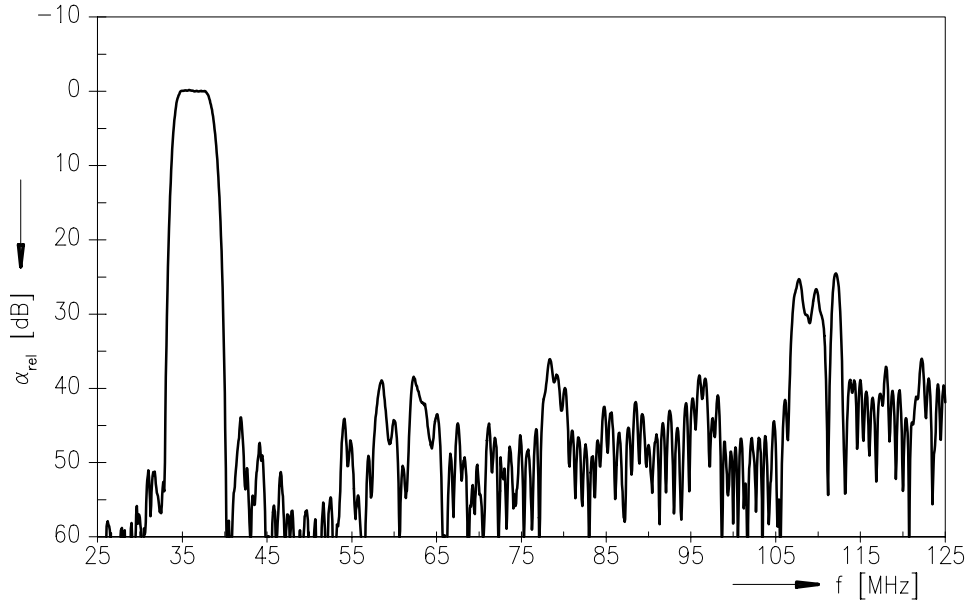
Frequency response L,L' mode



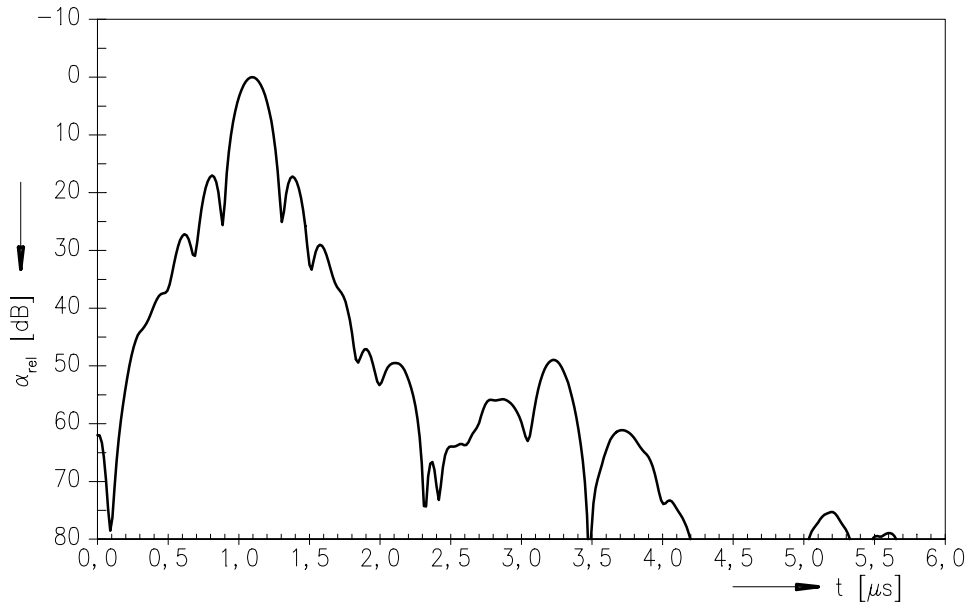


Data Sheet

Frequency response L,L' mode



Time domain response L,L' mode





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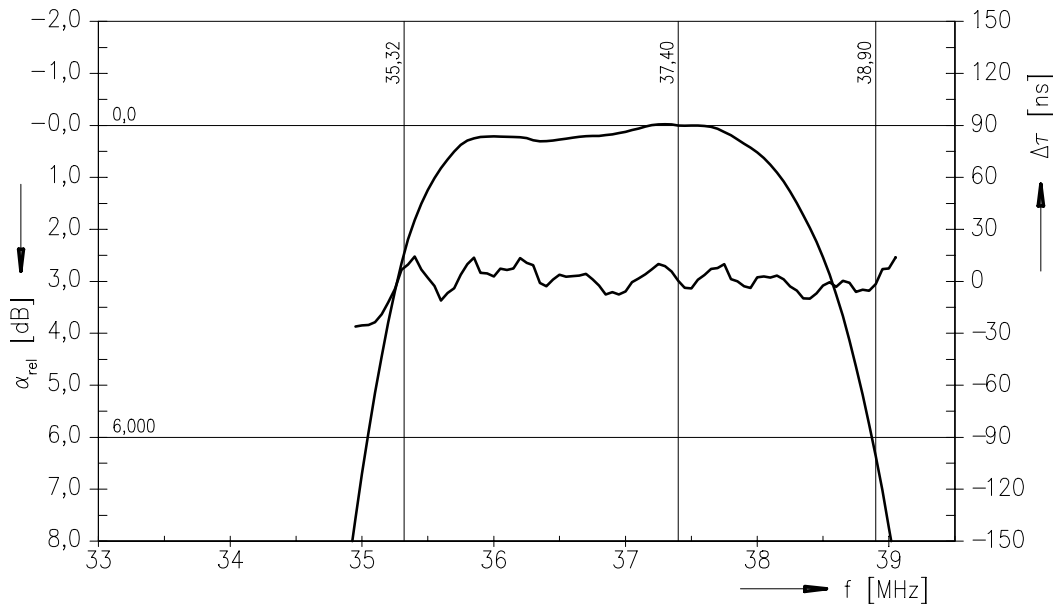
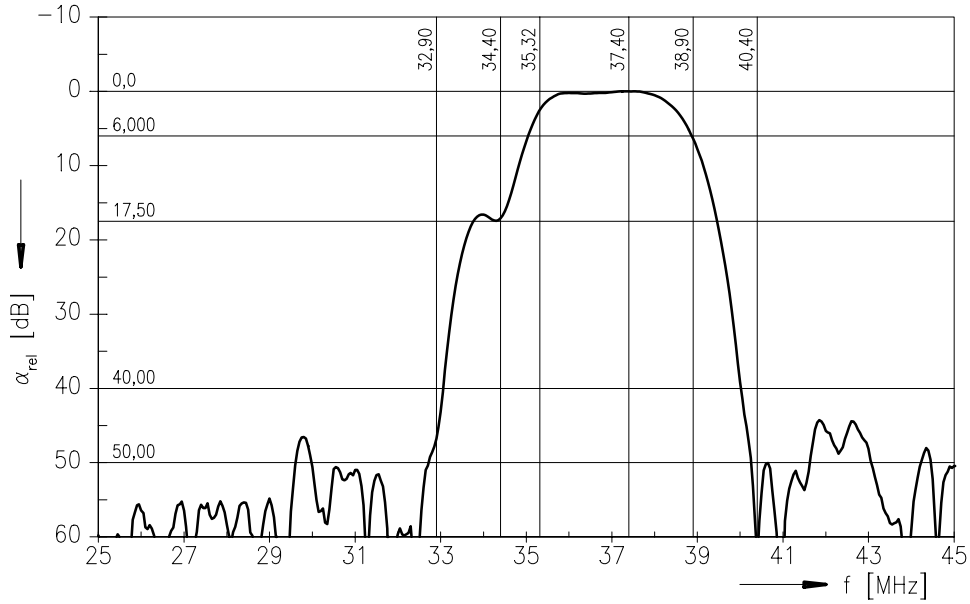
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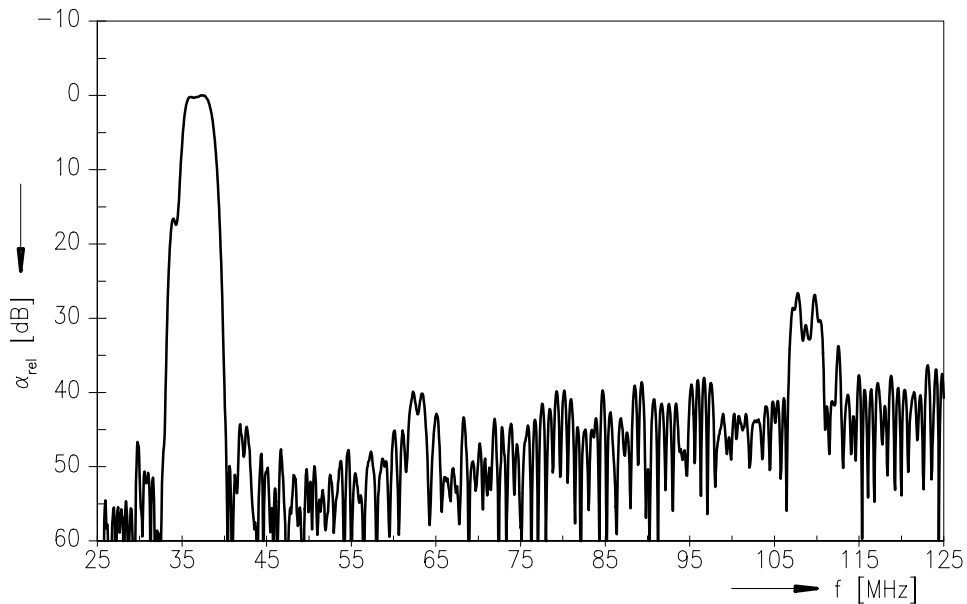
Frequency response M/N mode



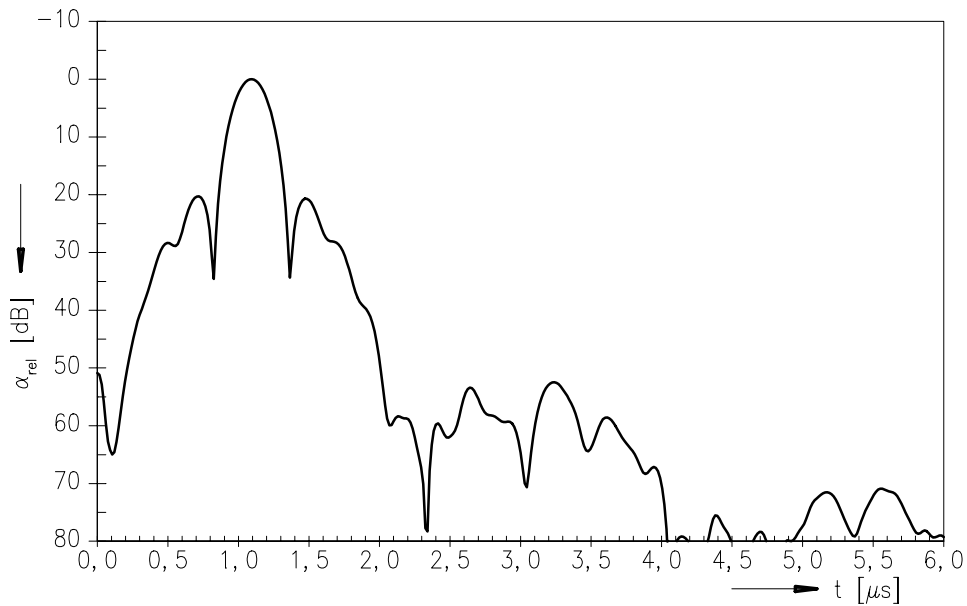


Data Sheet

Frequency response M/N mode



Time domain response M/N mode







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