



# SAW Components

Data Sheet K 3953 M





**SAW Components**

**K 3953 M**

**IF Filter for Video Applications**

**33,90 MHz and 38,90 MHz**

**Data Sheet**

**Standard**

- B/G
- D/K
- I
- L/L'

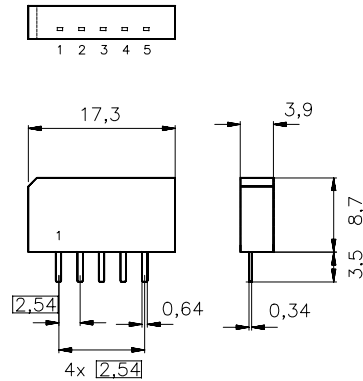
**Features**

- TV IF filter with Nyquist slopes at 33,90 MHz and 38,90 MHz
- Constant group delay
- Suitable for CENELEC EN 55020

**Terminals**

- Tinned CuFe alloy

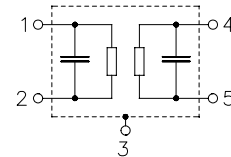
Plastic package **SIP5K**



Dimensions in mm, approx. weight 1,0 g

**Pin configuration**

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



Type	Ordering code	Marking and package according to	Packing according to
K 3953 M	B39389-K3953-M100	C61157-A1-A15	F61074-V8067-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**

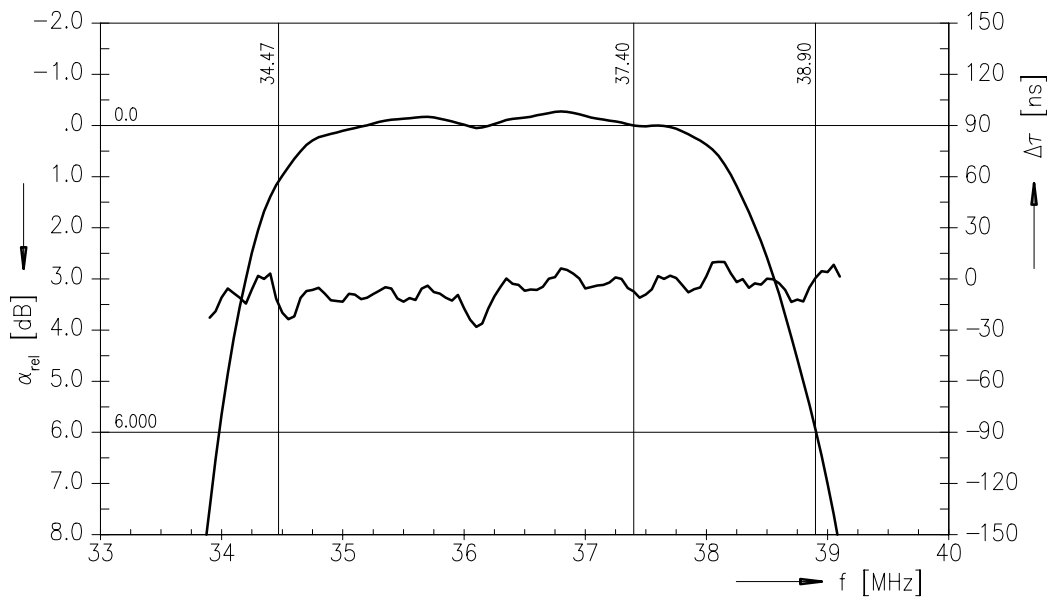
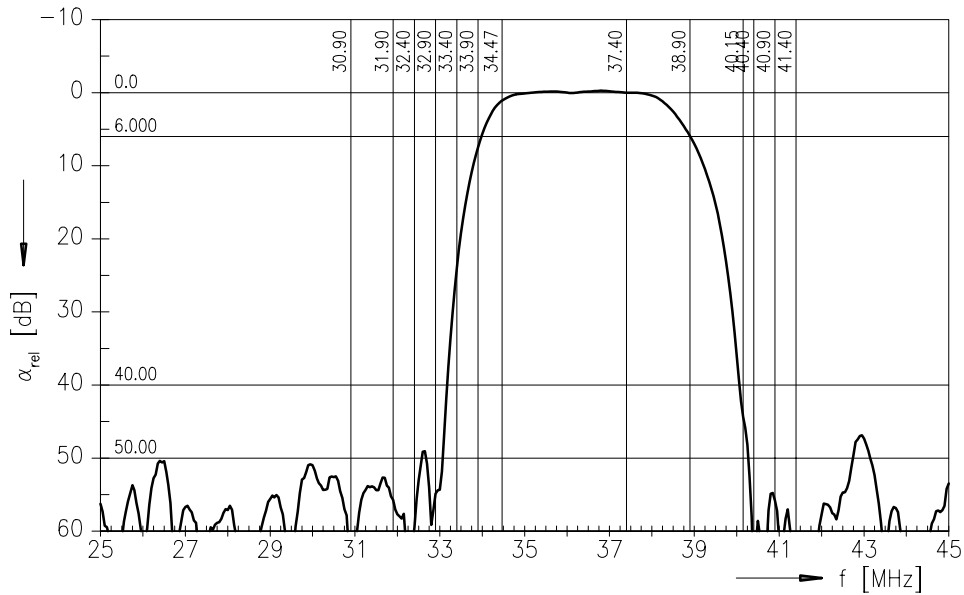
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.		
<b>Insertion attenuation</b>	$\alpha$					
Reference level for the following data	37,40 MHz	12,0	13,5	15,0	dB	
<b>Relative attenuation</b>	$\alpha_{rel}$					
Picture carrier	38,90 MHz	5,0	6,0	7,0	dB	
	33,90 MHz	6,3	7,5	8,7	dB	
Color carrier	34,47 MHz	—	1,3	—	dB	
	Sound carrier	33,40 MHz	20,0	24,0	—	dB
		32,90 MHz	—	54,0	—	dB
Adjacent picture carrier	32,40 MHz	—	63,0	—	dB	
	30,90 MHz	48,0	62,0	—	dB	
	31,90 MHz	48,0	59,0	—	dB	
	40,15 MHz	36,0	40,0	—	dB	
Adjacent sound carrier	40,40 MHz	48,0	59,0	—	dB	
	41,40 MHz	46,0	60,0	—	dB	
	40,90 MHz	46,0	59,0	—	dB	
Lower sidelobe	25,00 ... 31,90 MHz	45,0	52,0	—	dB	
Upper sidelobe	40,40 ... 45,00 MHz	38,0	44,0	—	dB	
<b>Reflected wave signal suppression</b>						
1,2 $\mu$ s ... 6,0 $\mu$ 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 $\mu$ s ... 1,1 $\mu$ 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>	$\Delta\tau$	—	50	—	ns	
<b>Impedance at 37,40 MHz</b>						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,4 $\parallel$ 16,9	—	k $\Omega$ $\parallel$ pF	
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 $\parallel$ 4,7	—	k $\Omega$ $\parallel$ pF	
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K	



Data Sheet

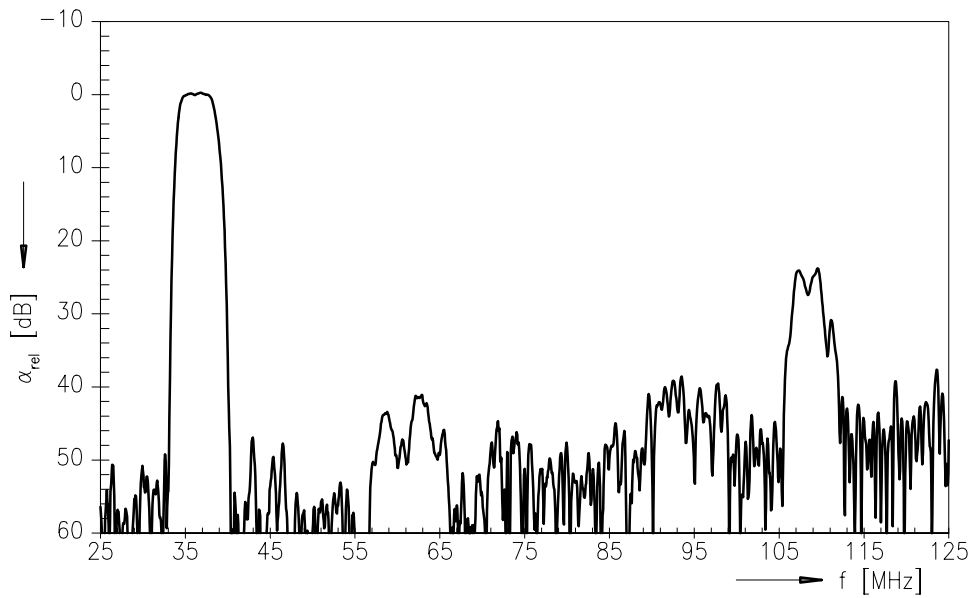
Frequency response



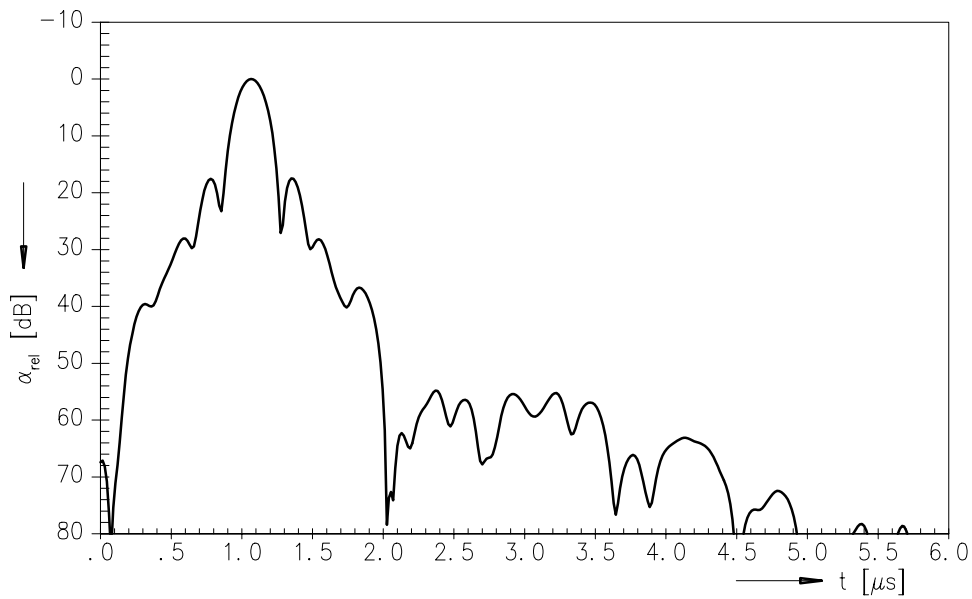


Data Sheet

Frequency response



Time domain response





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