

# SAW Components

Data Sheet K 3953 M





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# **IF Filter for Video Applications**

33,90 MHz and 38,90 MHz

#### **Data Sheet**

#### Standard

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

#### **Features**

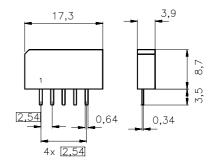
- TV IF filter with Nyquist slopes at 33,90 MHz and 38,90 MHz
- Constant group delay
- Suitable for CENELEC EN 55020

#### **Terminals**

■ Tinned CuFe alloy

#### Plastic package SIP5K

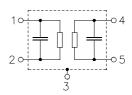




Dimensions in mm, approx. weight 1,0 g

#### Pin configuration

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



Туре	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	$T_{\rm stg}$	-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** 

 $\begin{array}{lll} \mbox{Reference temperature:} & T_{\mbox{A}} & = 25 \ ^{\circ}\mbox{C} \\ \mbox{Terminating source impedance:} & Z_{\mbox{S}} & = 50 \ \Omega \\ \mbox{Terminating load impedance:} & Z_{\mbox{L}} & = 2 \ \mbox{k}\Omega \ || \ 3 \ \mbox{pF} \\ \end{array}$ 

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the 37,40 MH	Ηz	12,0	13,5	15,0	dB
following data					
Relative attenuation	$lpha_{rel}$				
Picture carrier 38,90 Mi	Ηz	5,0	6,0	7,0	dB
33,90 MI		6,3	7,5	8,7	dB
Color carrier 34,47 Mi	Ηz	_	1,3	_	dB
Sound carrier 33,40 Mi	Ηz	20,0	24,0	_	dB
32,90 MI	Ηz	_	54,0	_	dB
32,40 Mi	Ηz	_	63,0	_	dB
Adjacent picture carrier 30,90 Mi	Ηz	48,0	62,0	_	dB
31,90 Mi	Ηz	48,0	59,0	_	dB
40,15 Mi	Ηz	36,0	40,0	_	dB
Adjacent sound carrier 40,40 Mi	Ηz	48,0	59,0	_	dB
41,40 Mi		46,0	60,0	_	dB
40,90 Mi	Ηz	46,0	59,0	_	dB
Lower sidelobe 25,00 31,90 Mi	Ηz	45,0	52,0	_	dB
Upper sidelobe 40,40 45,00 Mi	Ηz	38,0	44,0	_	dB
Reflected wave signal suppression 1,2 μs 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)	42,0	50,0	_	dB	
Feedthrough signal suppression 1,2 μs 1,1 μs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)	50,0	56,0	_	dB	
Group delay ripple (p-p)	$\Delta  au$	_	50	_	ns
Impedance at 37,40 MHz					
Input: $Z_{IN} = R_{IN}    C_{IN}$		_	1,4    16,9	_	$k\Omega \parallel pF$
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		_	1,6    4,7	_	kΩ    pF
Temperature coefficient of frequency	_	-72	_	ppm/K	



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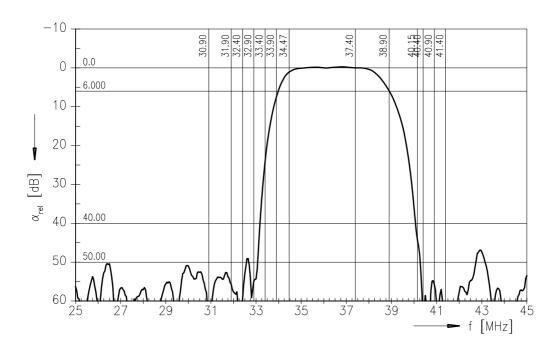
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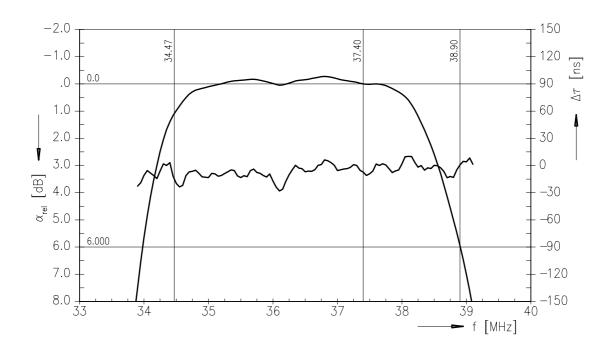
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## Frequency response







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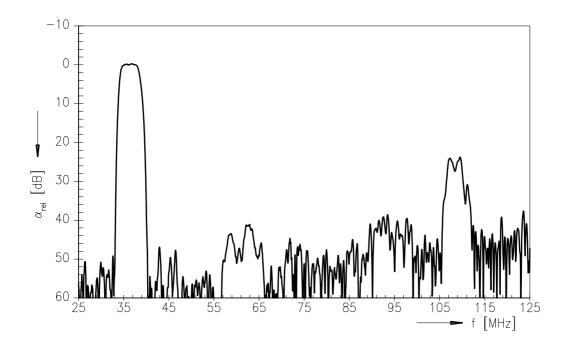
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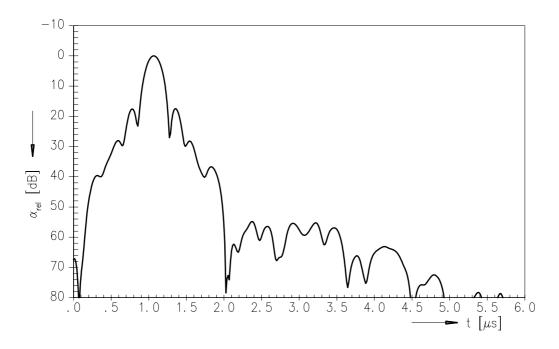
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## Frequency response



# Time domain response





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