



# SAW Filters for Multimedia Applications

## Series/Type: **G3956M**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39389G3956M100		2010-10-08	2011-03-30	2011-06-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at [www.epcos.com/sales](http://www.epcos.com/sales).



**SAW Components**

**G 3956 M**

**IF Filter for Video Applications**

**38,90 MHz**

**Data Sheet**

**Standard**

- B/G

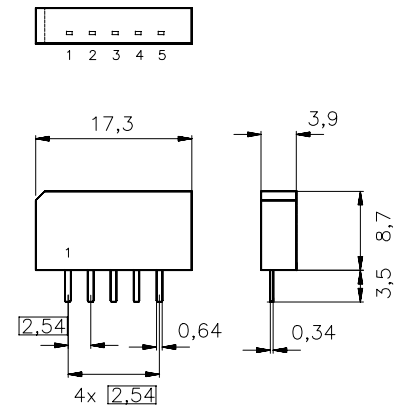
Plastic package **SIP5K**

**Features**

- TV IF filter with Nyquist slope and sound suppression
- High color carrier level
- Reduced group delay predistortion as compared with standard B/G, half
- Suitable for CENELEC EN 55020

**Terminals**

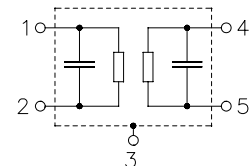
- Tinned CuFe alloy



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
G 3956 M	B39389-G3956-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**

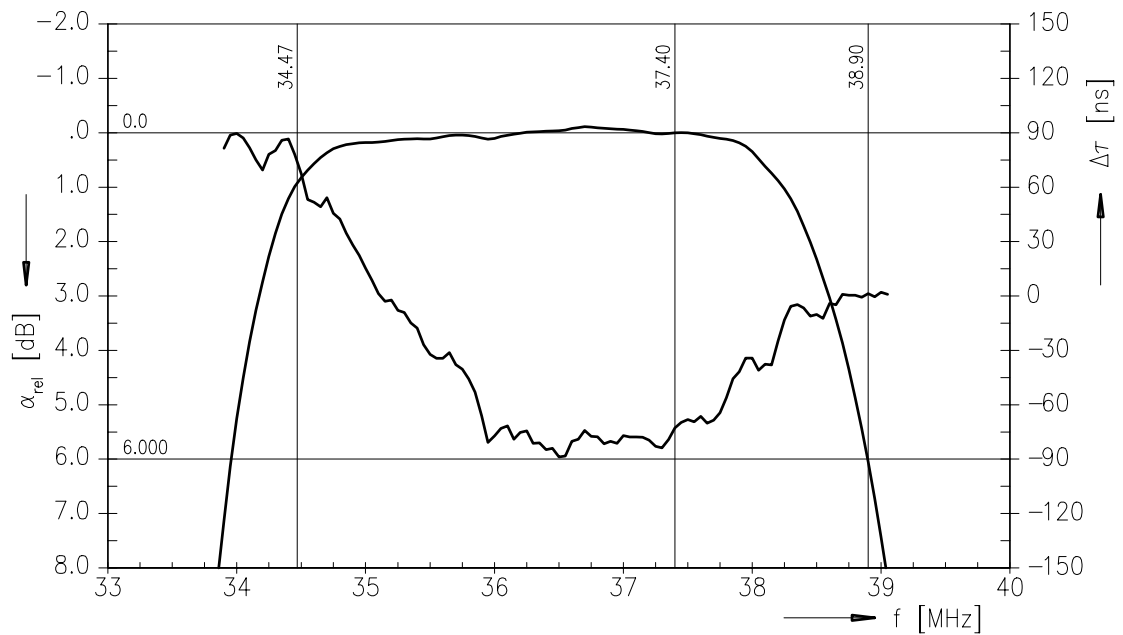
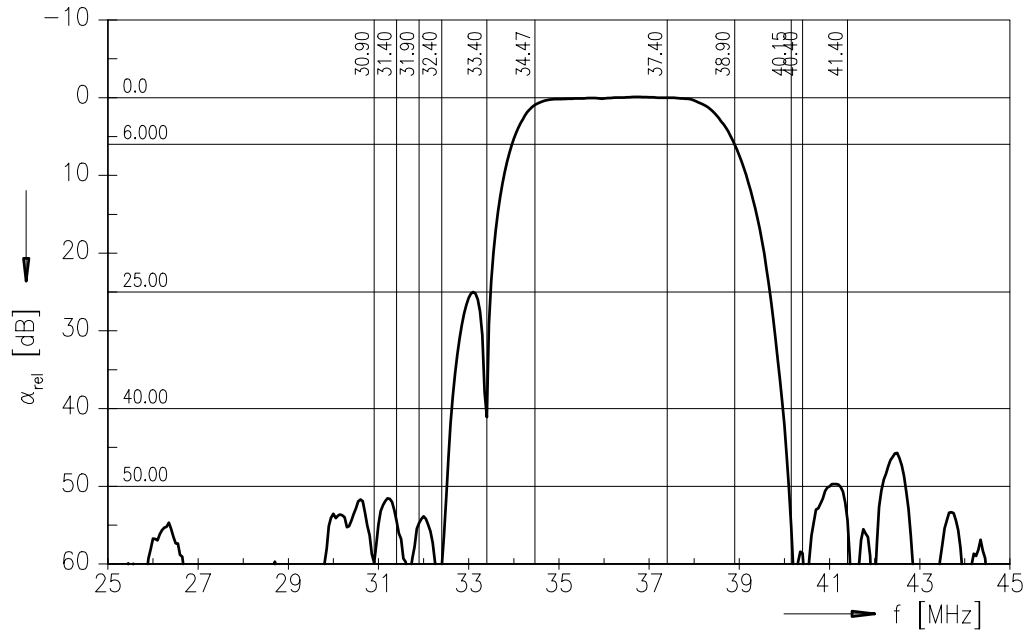
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	37,40 MHz	12,2	13,7	15,2	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
Picture carrier	38,90 MHz	5,1	6,1	7,1	dB
Color carrier	34,47 MHz	0,0	1,0	2,0	dB
Sound carrier	33,40 MHz	26,0	39,0	—	dB
	33,15 MHz	—	25,0	—	dB
	33,90 MHz	—	7,0	—	dB
	Adjacent picture carrier UHF	30,90 MHz	48,0	58,0	—
VHF	31,90 MHz	48,0	56,0	—	dB
	31,40 MHz	44,0	52,0	—	dB
	32,40 MHz	48,0	60,0	—	dB
	40,15 MHz	42,0	51,0	—	dB
Adjacent sound carrier	VHF 40,40 MHz	45,0	57,0	—	dB
	UHF 41,40 MHz	44,0	57,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	42,0	49,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	40,0	46,0	—	dB
<b>Reflected wave signal suppression</b>					
1,3 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu$ s ... 1,0 $\mu$ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
<b>Group delay predistortion</b>					
(reference frequency 38,90 MHz)					
	$\Delta\tau$				
	36,90 MHz	—	-85	—	ns
	34,47 MHz	—	70	—	ns
<b>Impedance at 37,40 MHz</b>					
Input:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,3 $\parallel$ 16,6	—	k $\Omega$ $\parallel$ pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1,4 $\parallel$ 4,5	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response





SAW Components

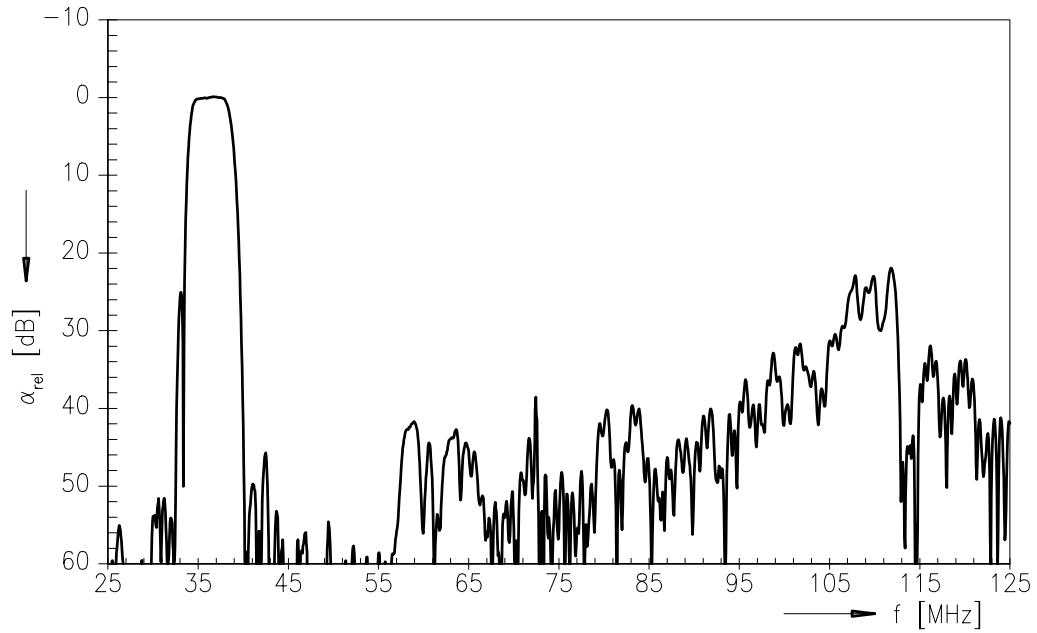
G 3956 M

IF Filter for Video Applications

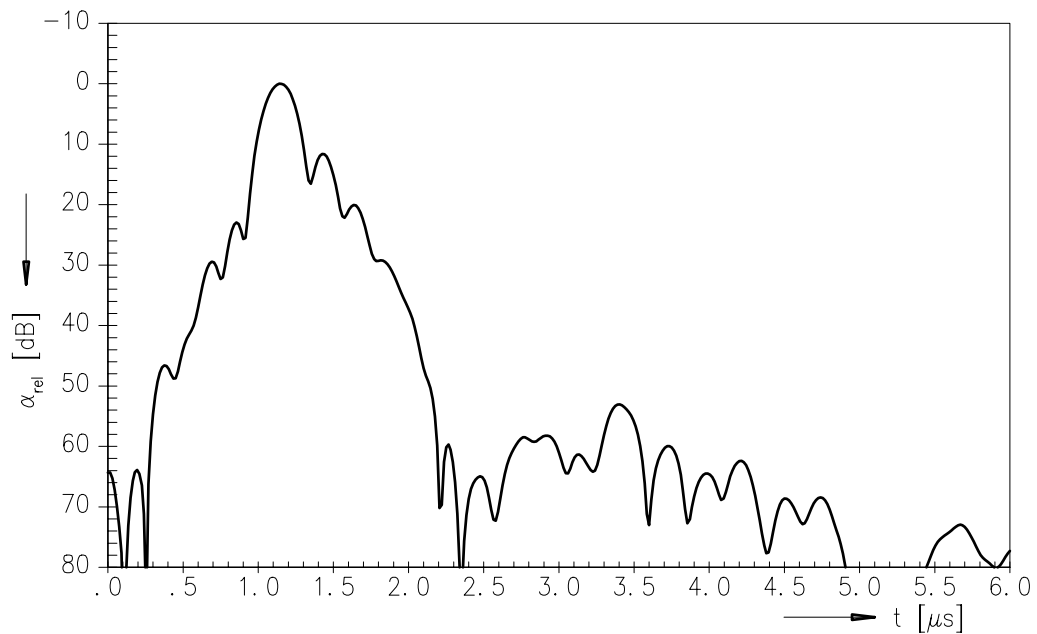
38,90 MHz

Data Sheet

Frequency response



Time domain response





**SAW Components**

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**IF Filter for Video Applications**

**38,90 MHz**

Data Sheet

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