



# 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The following products presented in this data sheet are being withdrawn.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- <del>Feb</del> <del>2010</del>	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

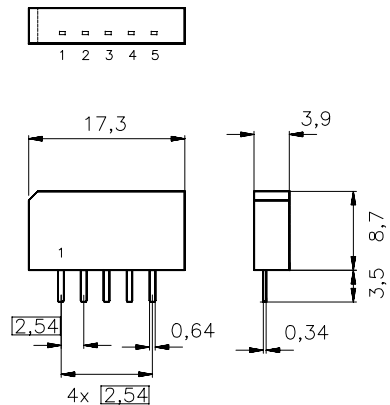
Plastic package **SIP5K**

**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**

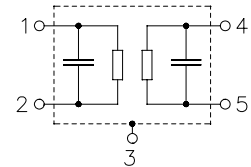
- Tinned CuFe alloy



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


**SAW Components**
**G 3956 M**
**IF Filter for Video Applications**
**38,90 MHz**
**Data Sheet**
**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



SAW Components

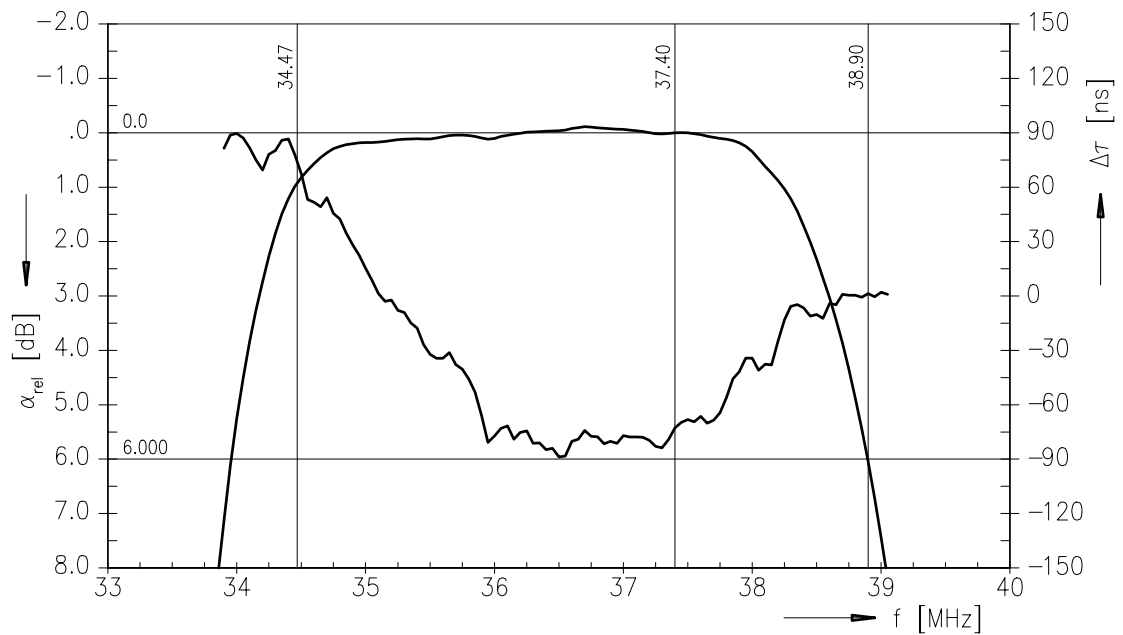
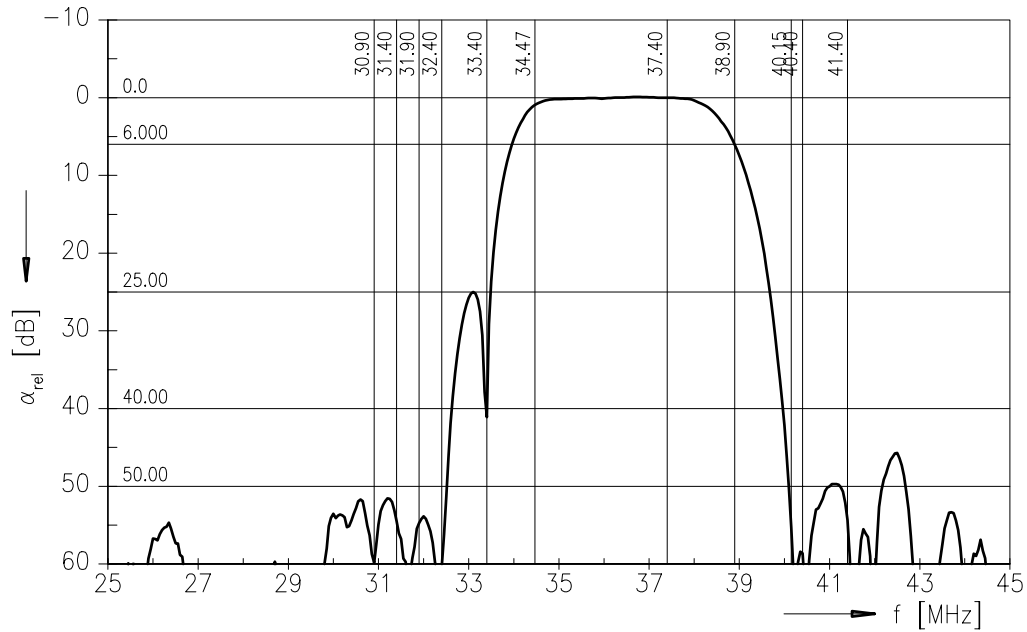
G 3956 M

IF Filter for Video Applications

38,90 MHz

Data Sheet

Frequency response





SAW Components

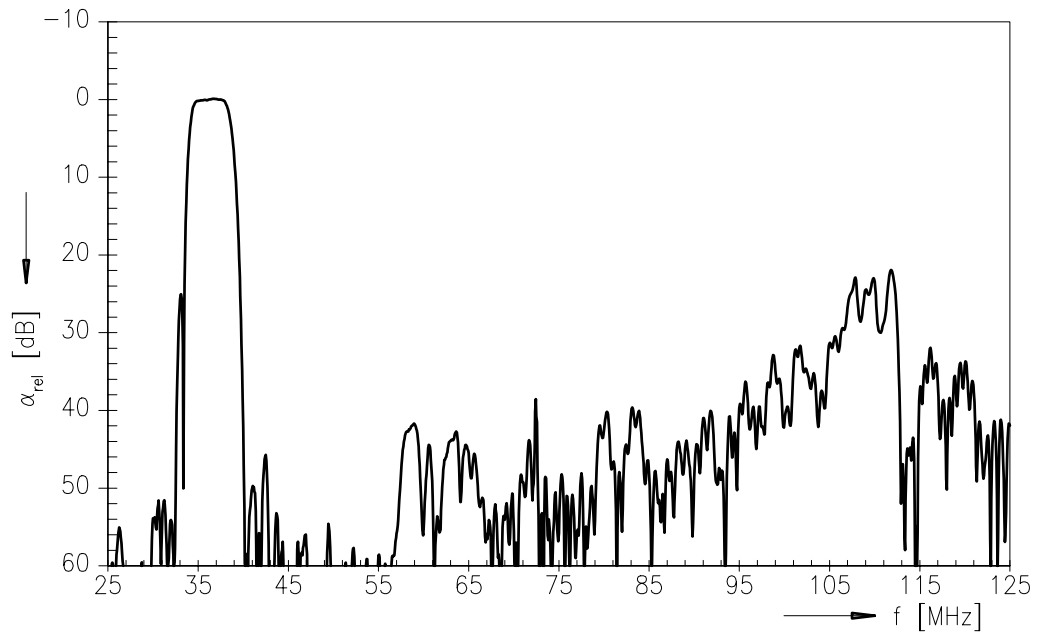
G 3956 M

IF Filter for Video Applications

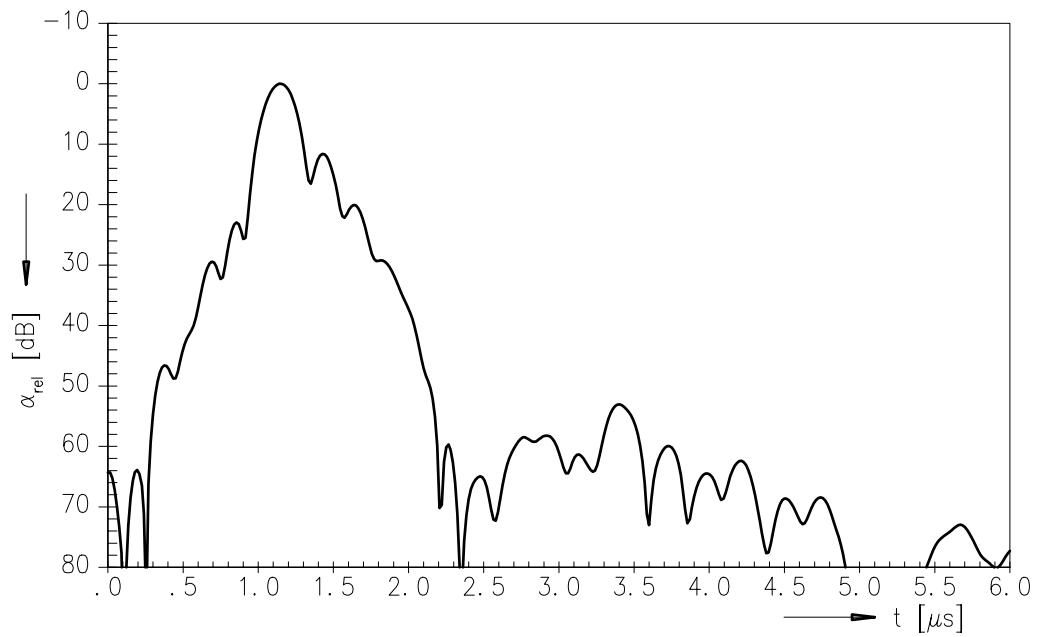
38,90 MHz

Data Sheet

Frequency response



Time domain response





**SAW Components**

**G 3956 M**

**IF Filter for Video Applications**

**38,90 MHz**

Data Sheet

**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW CE MM PD**

**P.O. Box 80 17 09, D-81617 München**

© EPCOS AG 2001. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.