



## IF Filters for Intercarrier Applications

**Series/Type:**        **G1965M**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39389G1965M100	G1967M	2004-09-24	2005-09-30	

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).



## Withdrawn Products

The following products presented in this data sheet are being withdrawn:

B39389G1965M100

Date of withdrawal: 24-SEP-04

Deadline for last orders: 30-SEP-05

Last shipments:

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



# SAW Components

Data Sheet G 1965 M





**SAW Components**

**G 1965 M**

**IF Filter for Intercarrier Applications**

**38,90 MHz**

**Data Sheet**

**Standard**

Plastic package **SIP5K**

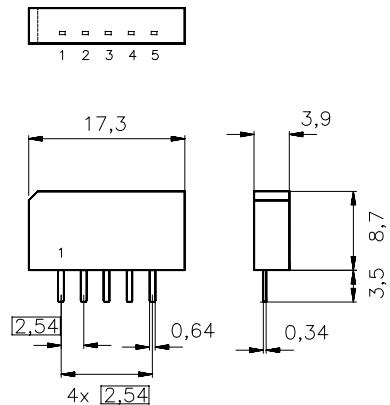
- B/G

**Features**

- TV IF filter with Nyquist slope and sound shelf
- High color carrier level
- Constant group delay
- Suitable for CENELEC EN 55020

**Terminals**

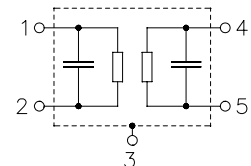
- Tinned CuFe alloy



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 1965 M	B39389-G1965-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	$V_{DC}$	12	V	between any terminals
AC voltage	$V_{pp}$	10	V	between any terminals


**SAW Components**
**G 1965 M**
**IF Filter for Intercarrier Applications**
**38,90 MHz**
**Data Sheet**
**Characteristics**

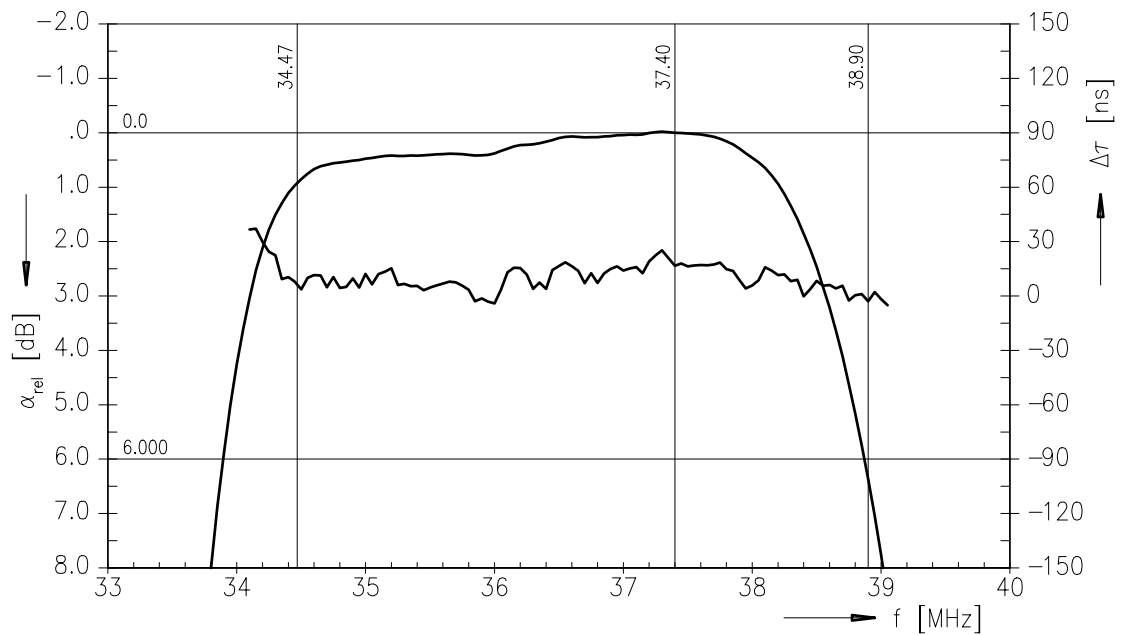
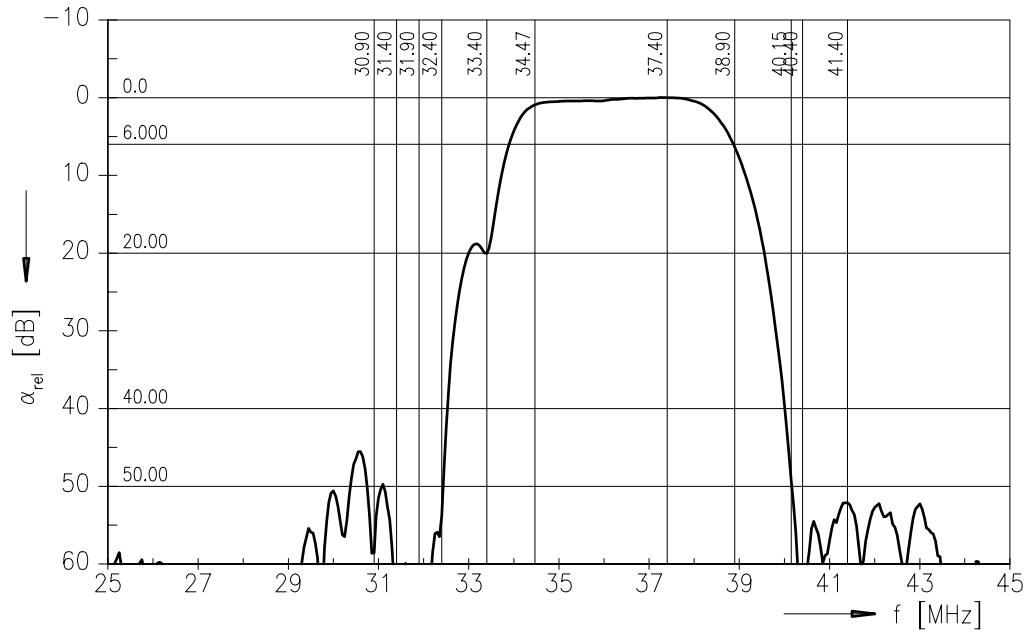
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	37,40 MHz	13,6	15,1	16,6	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
Picture carrier	38,90 MHz	5,0	6,0	7,0	dB
	33,90 MHz	—	6,2	—	dB
Color carrier	34,47 MHz	0,0	1,0	2,0	dB
Sound carrier	33,40 MHz	18,9	20,4	21,9	dB
Adjacent picture carrier UHF	30,90 MHz	45,0	57,0	—	dB
VHF	31,90 MHz	48,0	55,0	—	dB
	31,40 MHz	46,0	61,0	—	dB
	32,40 MHz	48,0	55,0	—	dB
	40,15 MHz	38,0	48,0	—	dB
Adjacent sound carrier VHF	40,40 MHz	44,0	55,0	—	dB
UHF	41,40 MHz	42,0	53,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	40,0	47,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	38,0	48,0	—	dB
<b>Reflected wave signal suppression</b>					
1,1 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	53,0	—	dB
<b>Feedthrough signal suppression</b>					
1,3 $\mu$ 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:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,9 $\parallel$ 13,8	—	k $\Omega$ $\parallel$ pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1,5 $\parallel$ 4,8	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response





SAW Components

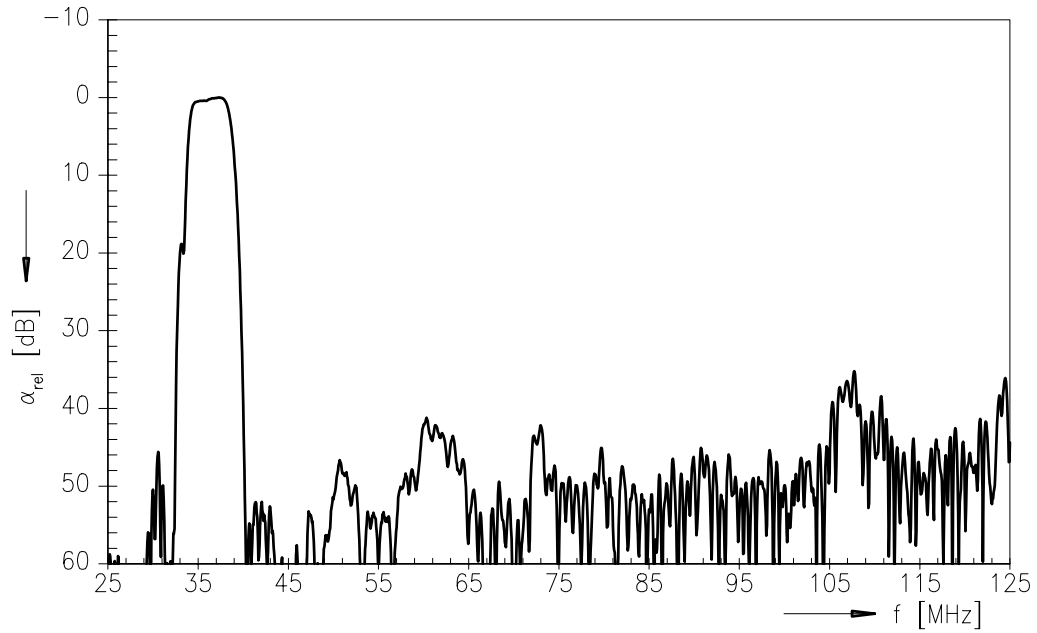
G 1965 M

IF Filter for Intercarrier Applications

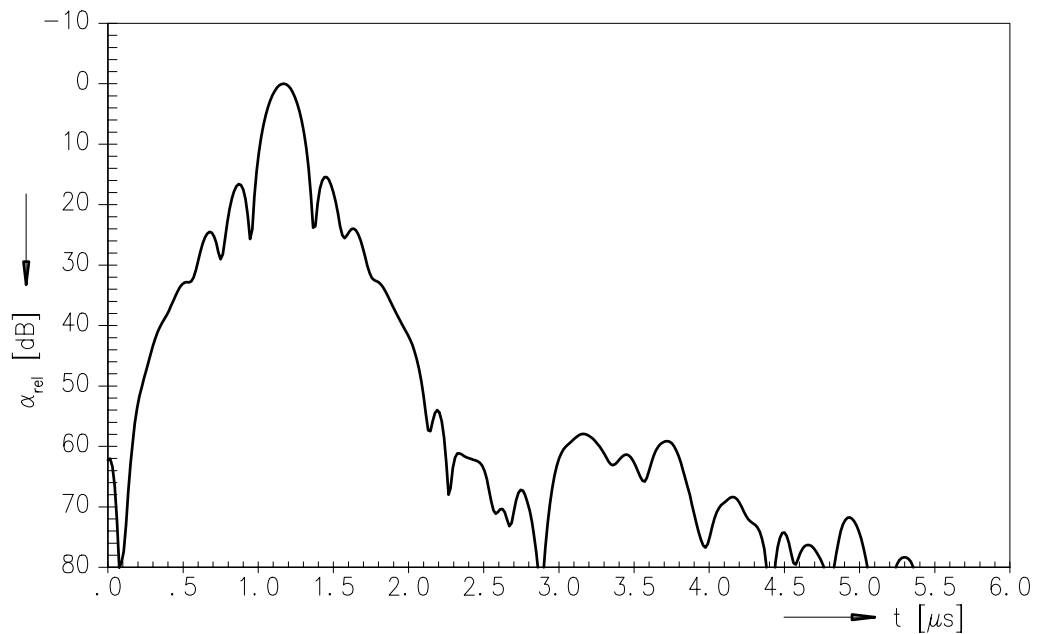
38,90 MHz

Data Sheet

Frequency response



Time domain response





**SAW Components**

**G 1965 M**

**IF Filter for Intercarrier 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.