

# SAW multimedia filters

Series/Type: G4963D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product		Deadline Last Orders	Last Shipments
B39389G4963N201		2011-01-14	2011-09-30	2012-09-30

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.

© EPCOS AG 2015. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.



# SAW Components G 4963 D Vestigial Sideband Filter 38,90 MHz

**Data Sheet** 

#### Standard

■ B/G

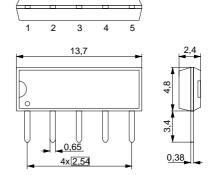
# Duroplast package SIP5D

#### **Features**

- IF filter for antenna converters
- Full transmission of vestigial sideband and sound carrier
- Group delay predistortion for transmitters

#### **Terminals**

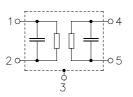
■ Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

# Pin configuration

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



		Marking and package according to	Packing according to		
G 4963 D	B39389-G4963-N201	C61157-A1-A21	F61074-V8049-Z000		

# **Maximum ratings**

Operable temperature range	$T_{A}$	- 25/+ 65	°C	
Storage temperature range	$T_{ m stg}$	- 40/ <del>+</del> 85	°C	
DC voltage	$V_{DC}$	5	V	between any terminals
AC voltage	$V_{\sf pp}$	10	V	between any terminals



SAW Components G 4963 D

Vestigial Sideband Filter 38,90 MHz

**Data Sheet** 

# Characteristics

Reference temperature:  $T_{\rm A}=25\,^{\circ}{\rm C}$ Terminating source impedance:  $Z_{\rm S}=50\,\Omega$ Terminating load impedance:  $Z_{\rm L}=2\,{\rm k}\Omega\,||\,3\,{\rm pF}$ 

					min.	typ.	max.	
Insertion attenuation				α				
Reference level for the following data		38,90	MHz		16,0	18,5	20,0	dB
Relative attenuation				$\alpha_{\text{rel}}$				
		39,65	MHz		3,2	4,4	5,6	dB
Sound carrier		33,40	MHz		-1,0	0,0	1,0	dB
2nd sound carrier		33,15	MHz		-1,1	-0,1	0,9	dB
Adjacent picture carrier		31,90	MHz		38,0	57,0	_	dB
Adjacent sound carrier		40,40	MHz		40,0	51,0	_	dB
		44,40	MHz		42,0	51,0	_	dB
Lower sidelobe	25,00	30,40	MHz		39,0	45,0	_	dB
	30,40	31,90	MHz		37,0	42,0	_	dB
Upper sidelobe	40,40	45,00	MHz		35,0	40,0	<del>-</del>	dB
Reflected wave signal	suppressio	n						
1,3 μs 6,0 μs after ma	in pulse				42,0	52,0	_	dB
(test pulse 250 ns,								
carrier frequency 38,90	MHz)							
Feedthrough signal su	ppression							
1,4 μs 1,3 μs before n	nain pulse				50,0	56,0	_	dB
(test pulse 250 ns,								
carrier frequency 38,90	MHz)							
Group delay predistort	ion			$\Delta  au$				
(reference frequency 38	,90 MHz)							
		36,90	MHz		_	90	_	ns
		34,47	MHz		_	-200	_	ns
Impedance at 38,90 MH	łz							
Input: $Z_{IN} = R_{IN}    C_{IN}$			_	1,4    18,4	_	$k\Omega \parallel pF$		
Output:	$Z_{\text{OUT}} = R_{\text{O}}$	$C_0$	DUT		_	4,5    4,1	_	$k\Omega \parallel pF$
Temperature coefficient of frequency		$TC_{f}$	_	-72	_	ppm/K		



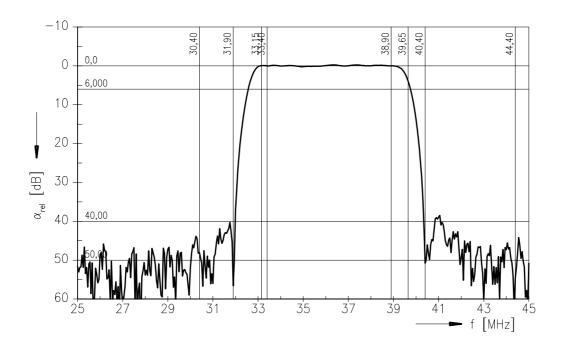
SAW Components G 4963 D

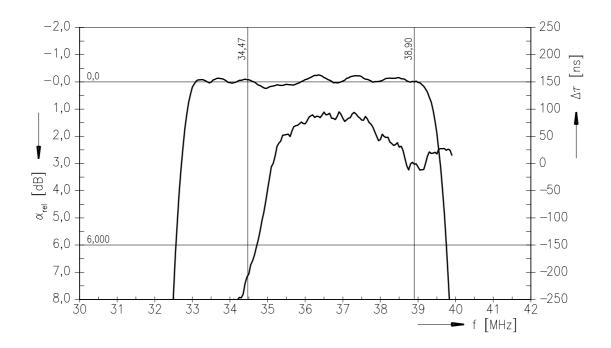
Vestigial Sideband Filter

38,90 MHz

**Data Sheet** 

# Frequency response





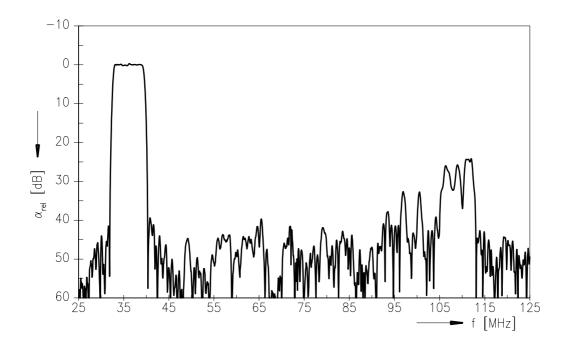


SAW Components G 4963 D

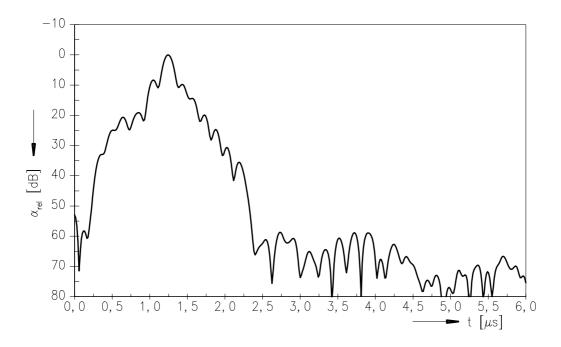
Vestigial Sideband Filter 38,90 MHz

**Data Sheet** 

# Frequency response



# Time domain response





SAW Components G 4963 D

Vestigial Sideband Filter 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 2003. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

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.