



SAW filters for infrastructure systems

Series/Type: B3606

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39141B3606Z510	B39141B5211Z510	2011-04-01	2011-06-30	2011-09-30

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.

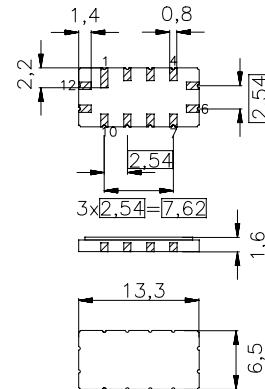
Data Sheet

 Ceramic package **QCC 12**
Features

- High performance IF bandpass filter
- Constant group delay
- Hermetically sealed ceramic package

Terminals

- Gold plated

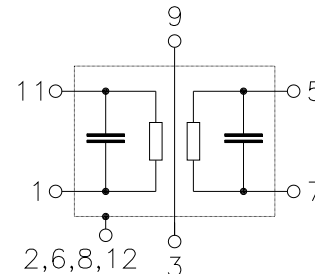


Dimensions in mm, approx. weight 0,4 g

Pin configuration

11	Input or balanced input
1	Input - ground or balanced input
5	Output or balanced output
7	Output - ground or bal. output
2, 6, 8, 12	Case ground
3, 4, 9, 10	Ground

Note: Input and output port can be mixed up



Type	Ordering code	Marking and Package according to	Packing according to
B3606	B39141-B3606-Z510	C61157-A7-A55	F61074-V8026-Z000

Electrostatic Sensitive Device (ESD)
Maximum ratings

Operable temperature range	T	- 40/+ 85	°C	source impedance 50 Ω
Storage temperature range	T_{stg}	- 55/+ 125	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

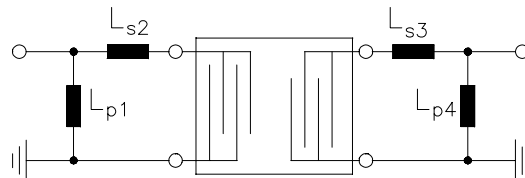
SAW Components
B3606
Low-Loss Filter
140,00 MHz
Data Sheet
Characteristics

Operating temperature: $T = -40^{\circ}\text{C} \dots 85^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50 \ \Omega$ and matching circuit
Terminating load impedance: $Z_L = 50 \ \Omega$ and matching circuit
TTI=Triple transit signal included; TTE=Triple transit signal excluded

		min.	typ.	max.	
Center frequency (Center between 6dB points; @ $T = 25^{\circ}\text{C}$)	f_C	139,75	140,00	140,25	MHz
Insertion attenuation at f_C	α_C	—	11,0	13,0	dB
Amplitude ripple (TTI, p-p) 130,0 ... 150,0 MHz	$\Delta\alpha$	—	0,6	0,9	dB
Pass bandwidth $\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	—	25,5	—	MHz
Phase ripple (TTE, p-p) 130,0 ... 150,0 MHz 131,0 ... 149,0 MHz	$\Delta\varphi$	—	8,0 6,0	9,5 7,0	$^{\circ}$ $^{\circ}$
Relative attenuation (relative to α_C) 100,0 ... 108,0 MHz 108,0 ... 116,0 MHz 116,0 ... 121,5 MHz 158,5 ... 164,0 MHz 164,0 ... 172,0 MHz 172,0 ... 180,0 MHz	α_{rel}	40,0 40,0 40,0 37,0 39,0 40,0	50,0 48,0 44,0 40,0 42,0 47,0	— — — — — —	dB dB dB dB dB dB
Reflected wave signal suppression 0,72 μs ... 0,62 μs before main pulse		45,0	50,0	—	dB
Reflected wave signal suppression 0,62 μs ... 2,88 μs after main pulse		33,0	37,0	—	dB
Group delay at f_C	τ_C	0,71	0,72	0,73	μs
Group delay ripple (TTE, p-p) 130,0 ... 150,0 MHz	$\Delta\tau$	—	15,0	—	ns
Temperature coefficient of frequency	TC_f	—	-87	—	ppm/K

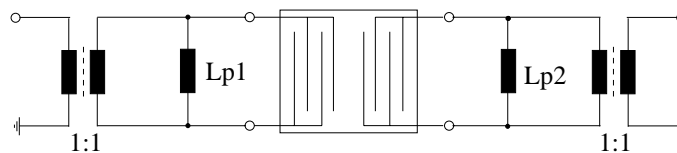
Data Sheet

Matching circuit: unbalanced - unbalanced



$L_{p1}=47\text{nH}$
 $L_{s2}=10\text{nH}$
 $L_{s3}=10\text{nH}$
 $L_{p4}=47\text{nH}$

Matching circuit: balanced - balanced

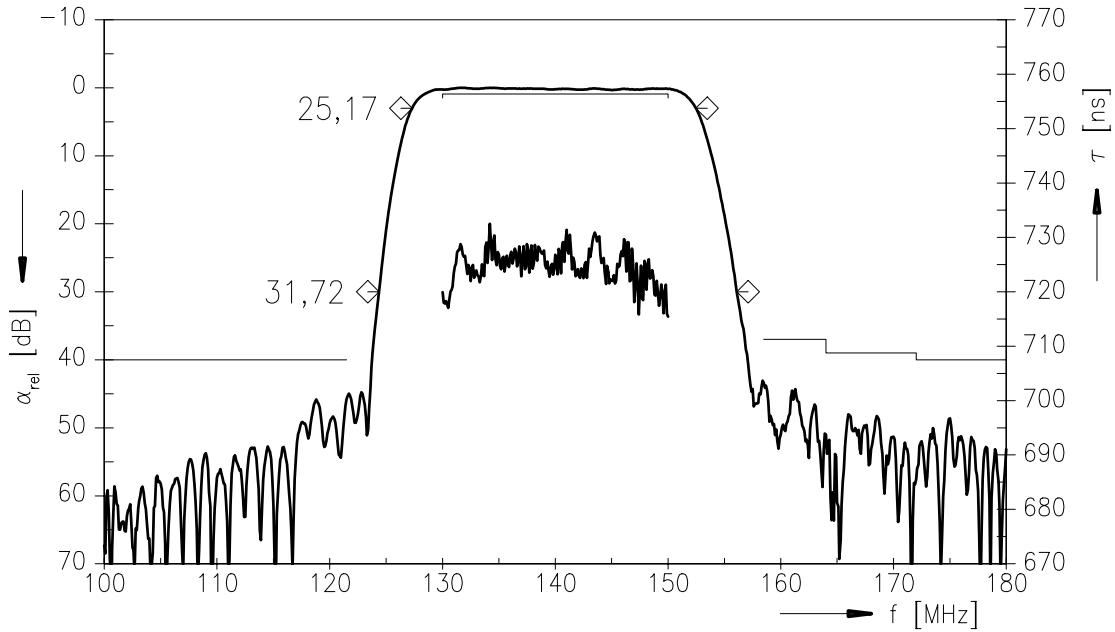


$L_{p1}=62\text{nH}$
 $L_{p2}=62\text{nH}$

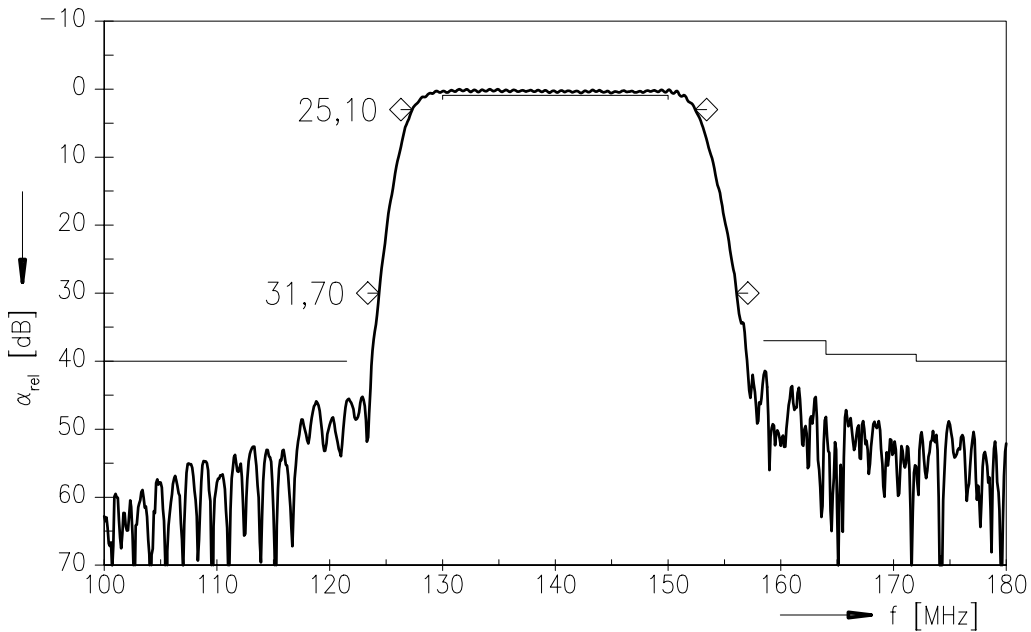
Note: Component values depend on PCB layout.

Data Sheet

Normalized frequency response (Triple transit signal excluded)

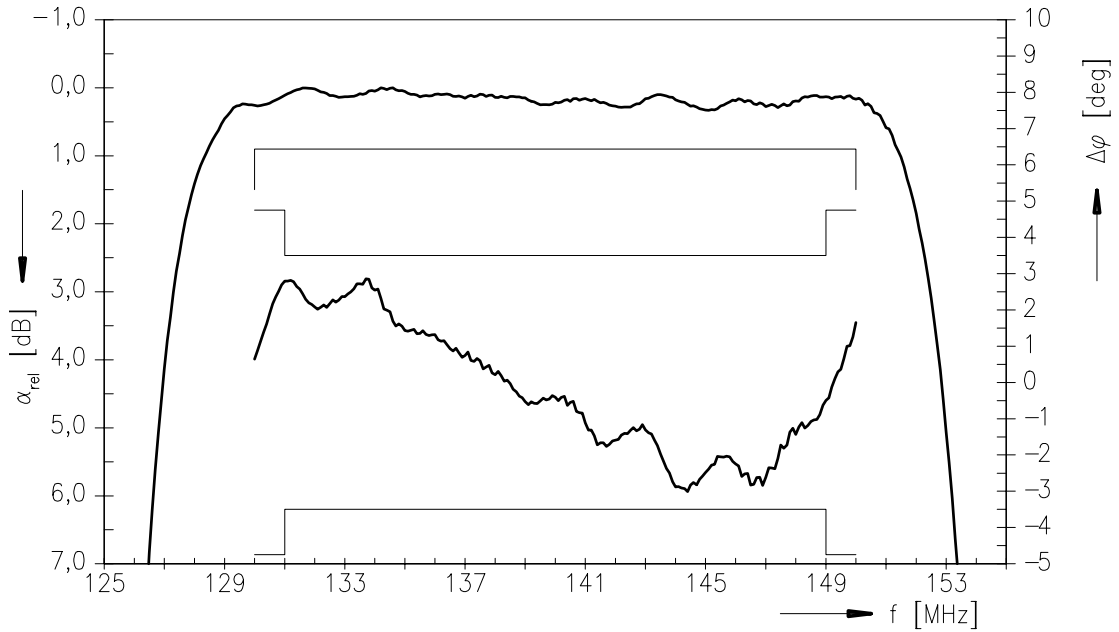


Normalized frequency response (Triple transit signal included)

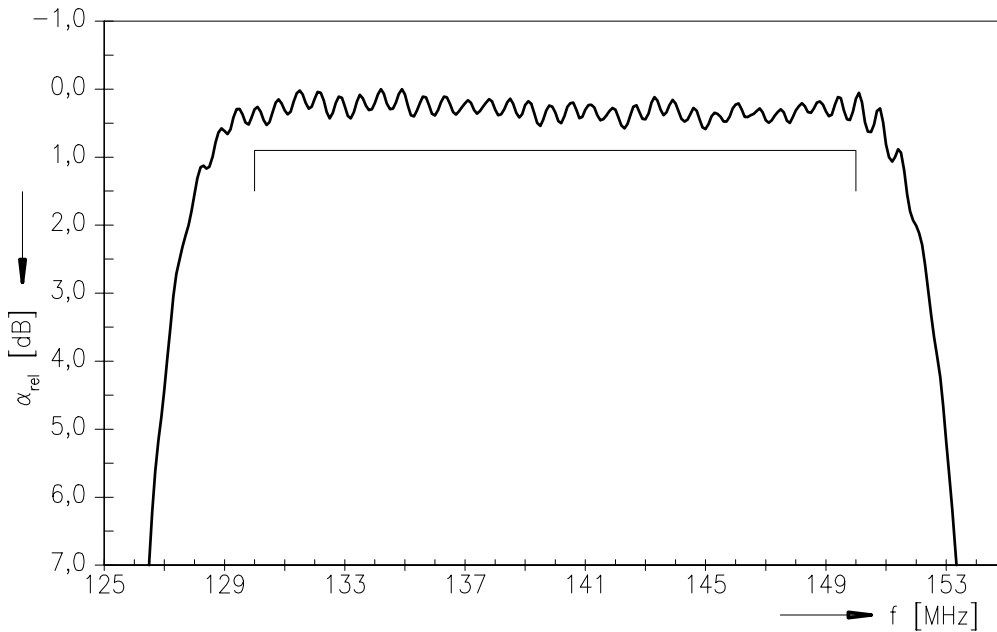


Data Sheet

Normalized frequency response (Triple transit signal excluded)

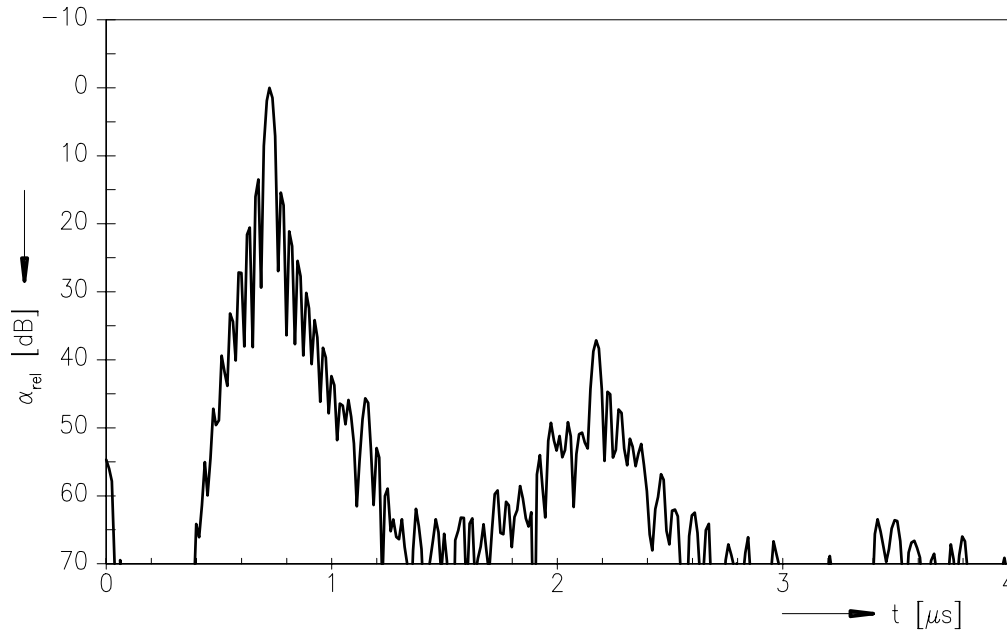


Normalized frequency response (Triple transit signal included)



Data Sheet

Normalized time response



SAW Components

B3606

Low-Loss Filter

140,00 MHz

Data Sheet

Attachment

1) Pyroelectric pulse amplitude < 50 mV.

Published by EPCOS AG**Surface Acoustic Wave Components Division, SAW MC IS 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.