



# SAW filters for infrastructure systems

## Series/Type: **B3607**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39141B3607Z510	B39141B5093Z510	2011-04-01	2011-06-30	2011-09-30

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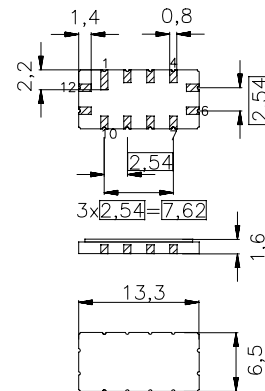
**SAW Components**
**B3607**
**Low-Loss Filter**
**140,00 MHz**
**Data Sheet**

 Ceramic package **QCC12**
**Features**

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

**Terminals**

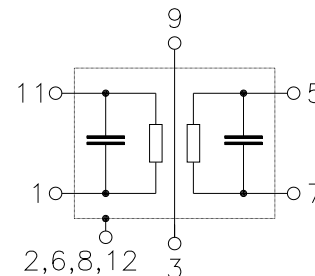
- Gold plated



Dimensions in mm, approx. weight 0,4 g

**Pin configuration**

11	Input
1	Input - ground
5	Output
7	Output - ground
2, 6, 8, 12	Case - ground
3, 9	Shield - ground
4, 10	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3607	B39141-B3607-Z510	C61157-A7-A55	F61074-V8163-Z000

**Electrostatic Sensitive Device (ESD)**
**Maximum ratings**

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

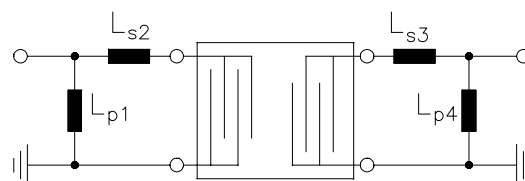
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**Characteristics**

Operating temperature:  $T = 25 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$  and matching circuit  
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$  and matching circuit  
 Group delay aperture: 200 kHz

		min.	typ.	max.	
<b>Center frequency</b> (Center between 6dB points)	$f_C$	139,75	140,00	140,25	MHz
<b>Insertion attenuation at <math>f_C</math></b>	$\alpha_C$	—	6,0	7,5	dB
<b>Amplitude ripple (p-p)</b> 137,50 ... 142,50 MHz	$\Delta\alpha$	—	0,7	1,0	dB
<b>Phase ripple (p-p)</b> 137,50 ... 142,50 MHz	$\Delta\phi$	—	5	10	$^\circ$
<b>Pass bandwidth</b>					
$\alpha_{rel} \leq 1 \text{ dB}$	$B_{1dB}$	5,8	6,1	—	MHz
$\alpha_{rel} \leq 3 \text{ dB}$	$B_{3dB}$	6,9	7,1	—	MHz
$\alpha_{rel} \leq 40 \text{ dB}$	$B_{40dB}$	—	10,5	11,1	MHz
<b>Relative attenuation (relative to <math>\alpha_C</math>)</b>	$\alpha_{rel}$				
100,00 ... 134,00 MHz		40	47	—	dB
146,00 ... 180,00 MHz		40	46	—	dB
<b>Group delay at <math>f_C</math></b>	$\tau_C$	—	1,35	—	$\mu\text{s}$
<b>Group delay ripple (p-p)</b> 137,50 ... 142,50 MHz	$\Delta\tau$	—	80	150	ns
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-87	—	ppm/K

**Matching circuit:**

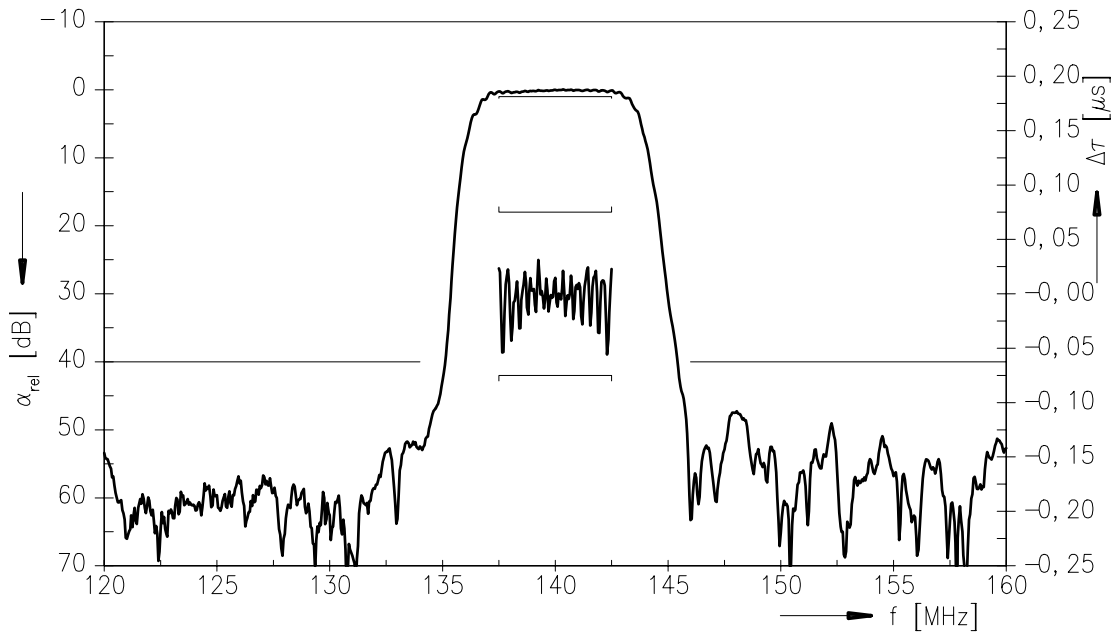
Note: Component values depend upon PCB layout



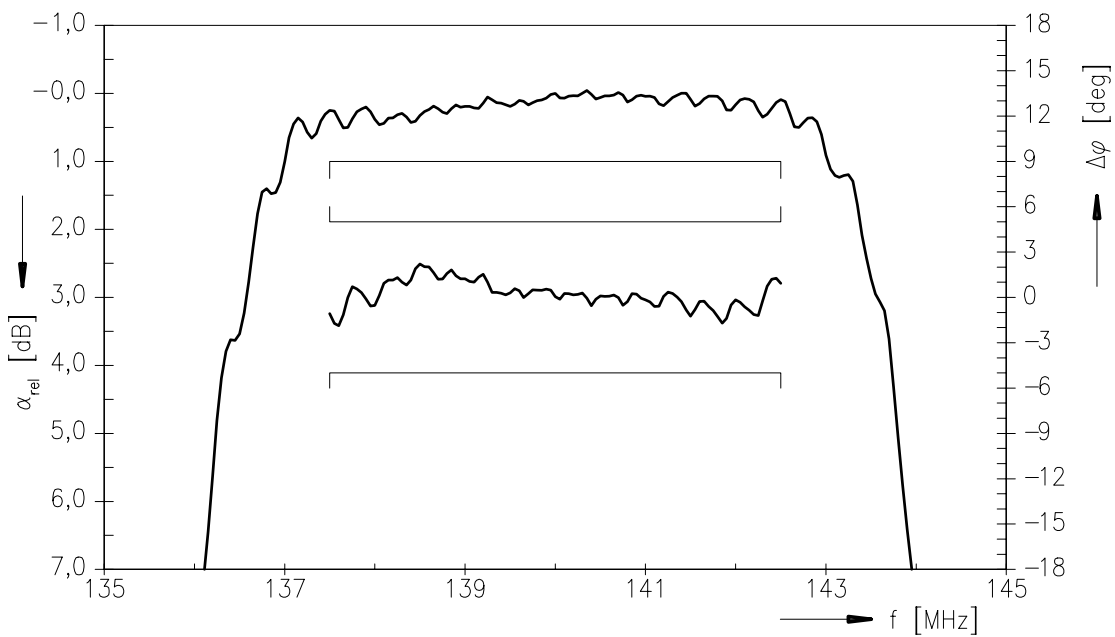
$L_{P1} = 47 \text{ nH}$   
 $L_{S2} = 27 \text{ nH}$   
 $L_{S3} = 39 \text{ nH}$   
 $L_{P4} = 68 \text{ nH}$

Data Sheet

Normalized frequency response



Normalized frequency response



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**Attachment**

1) Pyroelectric pulse amplitude < 50 mV.

**Published by EPCOS AG****Surface Acoustic Wave Components Division, SAW MC IS****P.O. Box 80 17 09, 81617 Munich, GERMANY**

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