



# SAW filters for infrastructure systems

## Series/Type: **B3886**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39121B3886H310		2012-01-13	2012-12-31	2013-03-30

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SAW Components

B3886

Low-Loss Filter

121,00 MHz

Data Sheet

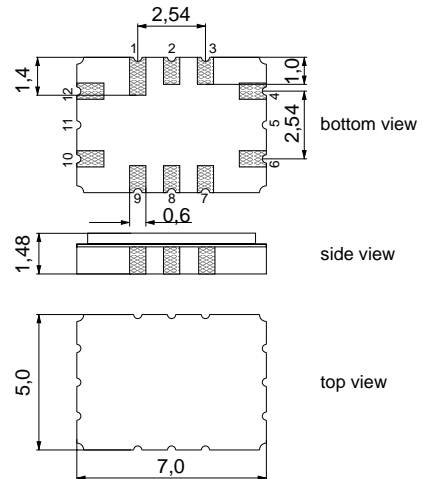
Ceramic package QCC12C

Features

- Low-loss IF filter
- Temperature stable
- Ceramic SMD package
- Balanced and unbalanced operation possible

Terminals

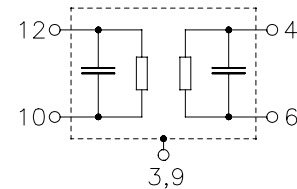
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3886	B39121-B3886-H310	C61157-A7-A95	F61074-V8170-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	$T$	-25 / +105	°C	
Storage temperature range	$T_{stg}$	-25 / +105	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_s$	10	dBm	


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**B3886**
**Low-Loss Filter**
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**Characteristics**

Operating temperature range:  $T = -25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 75\ \Omega$  and matching network  
 Terminating load impedance:  $Z_L = 75\ \Omega$  and matching network

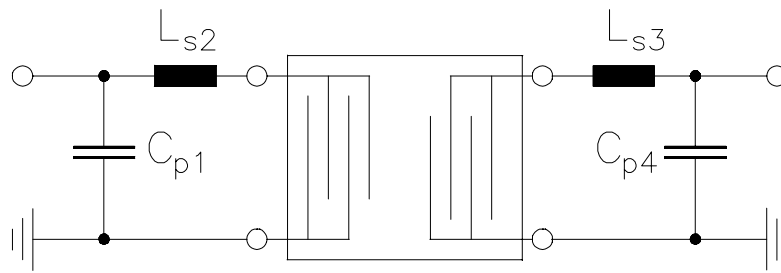
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	120,50	121,00	121,5	MHz
<b>Minimum insertion attenuation</b> (including loss in matching elements)	$\alpha_{\min}$	—	10,2	11,0	dB
<b>Amplitude ripple (p-p)</b> $f_C - 750\ \text{kHz}$ ... $f_C + 750\ \text{kHz}$	$\Delta\alpha$	—	0,5	1,2	dB
<b>Passband width</b>					
	$\alpha_{\text{rel}} \leq 1,0\ \text{dB}$	$B_{1,0\text{dB}}$	—	2,6	— MHz
	$\alpha_{\text{rel}} \leq 3,0\ \text{dB}$	$B_{3,0\text{dB}}$	2,6	3,5	— MHz
	$\alpha_{\text{rel}} \leq 35,0\ \text{dB}$	$B_{35\text{dB}}$	—	7,0	8,0 MHz
<b>Relative attenuation (relative to <math>\alpha_{\min}</math>)</b>	$\alpha_{\text{rel}}$				
5,0 MHz ... 81,0 MHz		45	60	—	dB
81,0 MHz ... 117,0 MHz		35	45	—	dB
125,0 MHz ... 151,0 MHz		35	45	—	dB
151,0 MHz ... 862,0 MHz		45	60	—	dB
<b>Impedance at <math>f_C</math></b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	263    28	—	$\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	263    23	—	$\Omega \parallel \text{pF}$
<b>VSWR (Input and Output)</b>	$f_C \pm 750\ \text{kHz}$	—	1,8	—	
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-18	—	ppm/K



Data Sheet

Matching network to 75  $\Omega$

(Element values depend upon PCB layout)



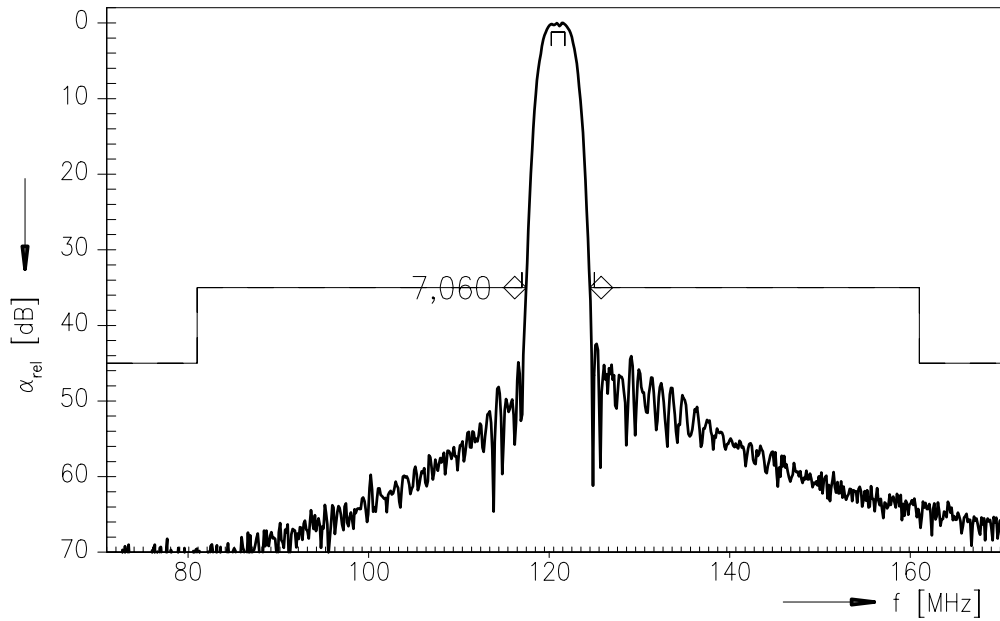
$C_{p1} = 47 \text{ pF}$   
 $L_{s2} = 82 \text{ nH}$

$L_{s3} = 100 \text{ nH}$   
 $C_{p4} = 33 \text{ pF}$

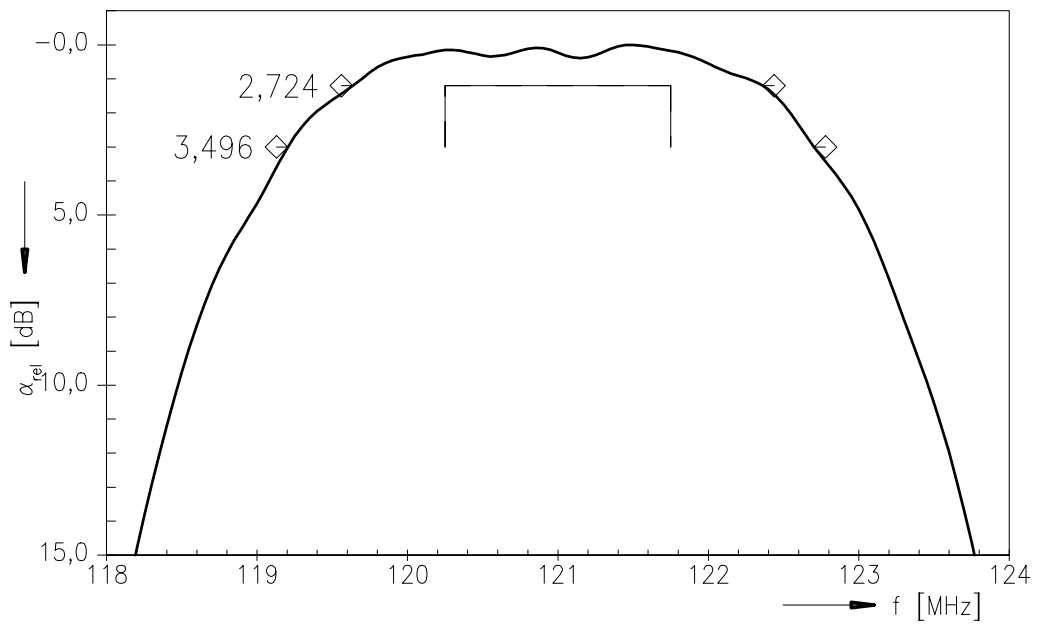


Data Sheet

Transfer function:



Transfer function (pass band):





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**B3886**

**Low-Loss Filter**

**121,00 MHz**

Data Sheet

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