



## IF Filters for Cordless Phones and ISM-Band Application

**Series/Type:**        **B8110**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39111B8110L100		2004-05-19	2004-12-31	2004-03-31

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## Withdrawn Products

The following products presented in this data sheet are being withdrawn:

B39111B8110L100

Date of withdrawal: 19-MAY-04

Deadline for last orders: 31-DEC-04

Last shipments: 31-MAR-04

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 B 8110 L

Data Sheet

A large, stylized, 3D-rendered graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are tilted and appear to be floating or emerging from a dark, swirling, smoke-like background. The overall effect is dynamic and modern.



## SAW Components

B 8110 L

## Bandpass Filter

110,59 MHz

### Data Sheet

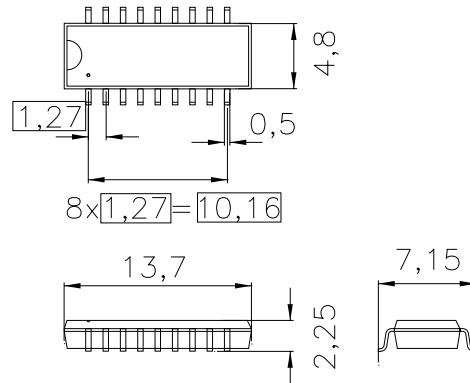
duroplast package **DIP18D**

#### Features

- IF filter for cordless application
- Channel selection in DECT system
- Low group delay ripple
- **Surface Mounted Technology (SMT)**
- Standard IC small outline (SO) package
- Balanced and unbalanced operation possible
- no matching required on 50  $\Omega$

#### Terminals

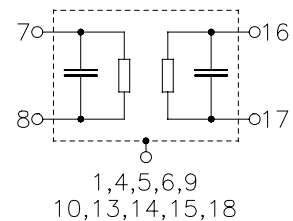
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

#### Pin configuration

- |                              |                                  |
|------------------------------|----------------------------------|
| 7                            | Input                            |
| 8                            | Input ground or balanced input   |
| 16                           | Output                           |
| 17                           | Output ground or balanced output |
| 1,4,5,6,9,10,<br>13,14,15,18 | Chip carrier – ground            |
| 2,3,11,12                    | not connected                    |



Type	Ordering code	Marking and Package according to	Packing according to
B8110L	B39111-B8110-L100	C61157-A2-A4	F61074-V8058-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T_A$	-40/+65	°C	
Storage temperature range	$T_{stg}$	-40/+85	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_s$	10	dBm	



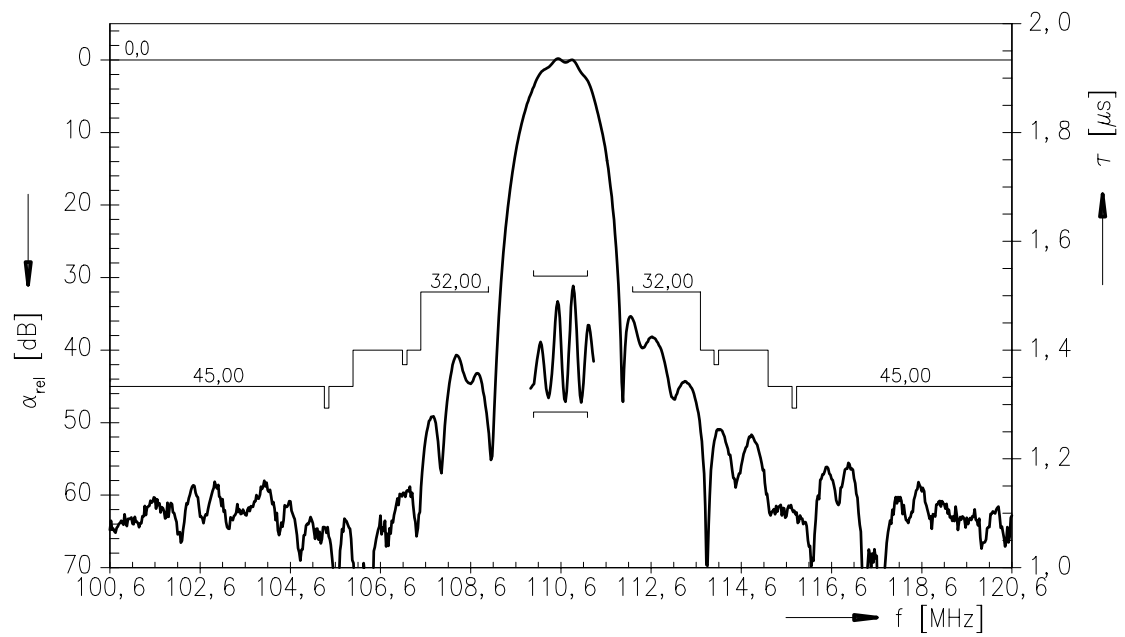
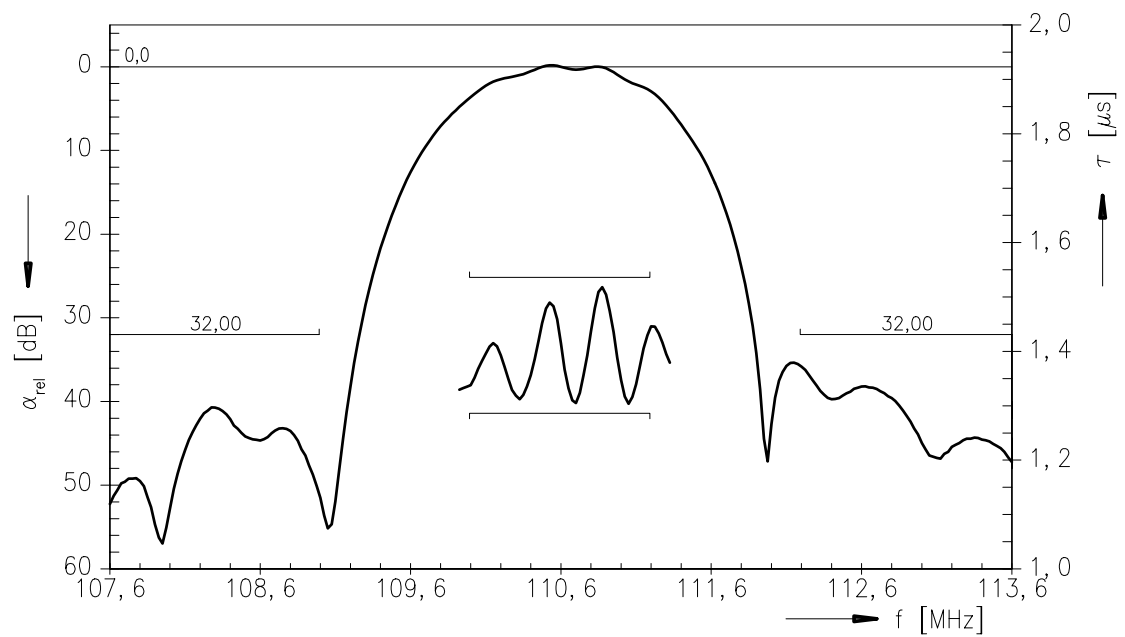
<b>SAW Components</b>	<b>B 8110 L</b>
<b>Bandpass Filter</b>	<b>110,59 MHz</b>

## Data Sheet

### Characteristics

Reference temperature:	$T = +25\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	110,59	—	MHz
<b>Center frequency</b> (center frequency between 10 dB points)	$f_c$	110,51	110,59	110,67	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	16,5	17,5	dB
<b>Passband width</b>	$B_{3\text{dB}}$	—	1,15	—	MHz
	$B_{30\text{dB}}$	—	2,57	—	MHz
<b>Group delay ripple (p-p)</b> $f_N - 600\text{ kHz} \quad \dots \quad f_N + 600\text{ kHz}$	$\Delta\tau$	—	180	250	ns
<b>Relative attenuation (relative to <math>\alpha_N</math>)</b>	$\alpha_{\text{rel}}$				
$f_N \pm 1,6\text{ MHz} \quad \dots \quad f_N \pm 3,1\text{ MHz}$		32	36	—	dB
$f_N \pm 3,1\text{ MHz} \quad \dots \quad f_N \pm 4,6\text{ MHz}$		40	52	—	dB
$f_N \pm 4,6\text{ MHz} \quad \dots \quad f_N \pm 20\text{ MHz}$		45	57	—	dB
$f_N \pm 1,728\text{ MHz}$		32	37	—	dB
$f_N \pm 2 \times 1,728\text{ MHz}$		42	57	—	dB
$f_N \pm 3 \times 1,728\text{ MHz}$		48	63	—	dB
<b>Impedance in pass band</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	850 $\parallel$ 6,8	—	$\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	100 $\parallel$ 25	—	$\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	– 18	—	ppm/K

**SAW Components****B 8110 L****Bandpass Filter****110,59 MHz****Data Sheet****Transfer function:****Transfer function (pass band):**



<b>SAW Components</b>	<b>B 8110 L</b>
<b>Bandpass Filter</b>	<b>110,59 MHz</b>

## Data Sheet

### **Published by EPCOS AG**

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