



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The following products presented in this data sheet are being withdrawn.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## Withdrawn Products

The following products presented in this data sheet are being withdrawn: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





SAW Components

B 8110 L

Bandpass Filter

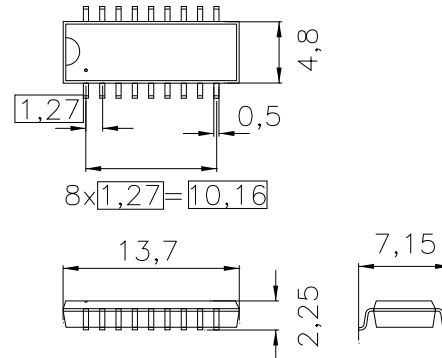
110,59 MHz

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 Ω



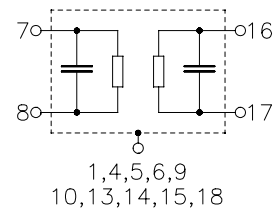
**Terminals**

- 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, 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


**SAW Components**
**B 8110 L**
**Bandpass Filter**
**110,59 MHz**
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**Characteristics**

Reference temperature:  $T = +25\text{ }^{\circ}\text{C}$   
 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



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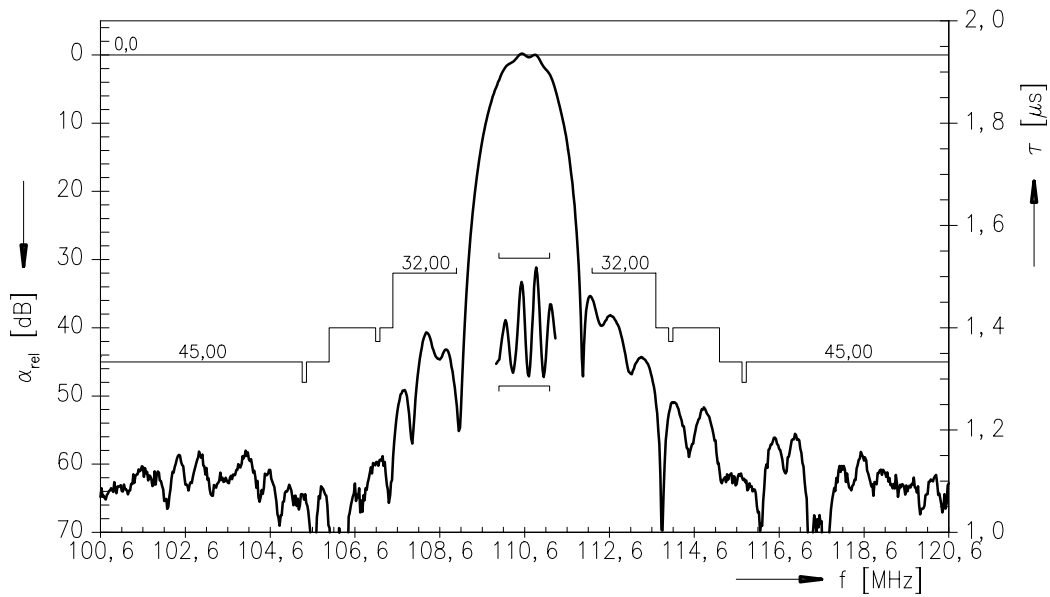
B 8110 L

Bandpass Filter

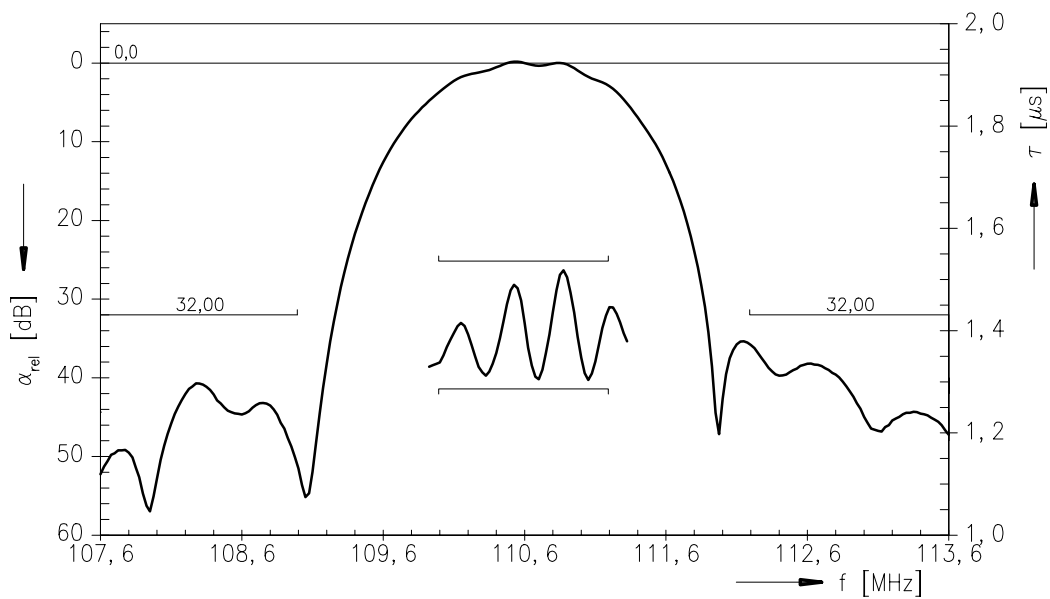
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Transfer function:



Transfer function (pass band):





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**Surface Acoustic Wave Components Division, SAW CE MM PD**

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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.