

# SAW Filters for Mobile Communications

Series/Type: B7841

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product		Deadline Last Orders	Last Shipments
B39242B7841C710		2009-12-18	2010-06-30	2010-09-30

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.



SAW Components B7841
Low-Loss Filter 2441,75 MHz

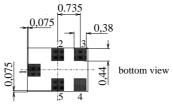
**Data Sheet** 



Chip Sized Saw Package

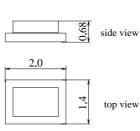
### **Features**

- Low-loss RF filter for bluetooth
- Usable passband 83,5 MHz
- Unbalanced to unbalanced operation
- Package for Surface Mounted Technology (SMT)



## **Terminals**

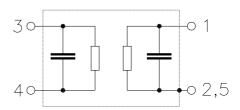
Ni, gold-plated



Dimensions in mm, approx. weight 0,007g

# Pin configuration

1	Input, unbalanced
4	Output, unbalanced
2,5	Case ground
3	to be grounded



Туре	Ordering code	Marking and Package	Packing
		according to	according to
B7841	B39242-B7841-C710	C61157-A7-A82	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

## **Maximum ratings**

Operable temperature range	T	<b>- 40 /+ 85</b>	°C	
Storage temperature range	$T_{\rm stg}$	<b>- 40 /+ 85</b>	°C	
DC voltage	$V_{\rm DC}$	3	V	
ESD voltage	$V_{ESD}$	50*	V	Machine Model, 10 pulses
Input power max. 24002483,5 MHz 824915, 17101980 MHz	P <sub>IN</sub>	6 15	dBm	source/load impedance 50Ω

<sup>\* -</sup> acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



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### **Characteristics**

 $\begin{array}{ll} \text{Operating temperature range:} & T & = -40 \text{ to} + 85 \text{ }^{\circ}\text{C} \\ \text{Terminating source impedance:} & Z_{\text{S}} & = 50 \text{ }\Omega - 1,5 \text{ nH (serial)} \\ \text{Terminating load impedance:} & Z_{\text{L}} & = 50 \text{ }\Omega - 2,5 \text{ nH (serial)} \\ \end{array}$ 

	min.	typ.	max.	
Center frequency f <sub>c</sub>	_	2441,75	_	MHz
$\begin{array}{c} \text{Maximum insertion attenuation} & \alpha_{\text{max}} \\ & 2400,0 & \dots 2483,5 \text{ MHz} \end{array}$		2,2	3,3	dB
<b>Return loss</b> 2400,0 2483,5 MHz*)	9,0	11,5	_	dB
Amplitude ripple (p-p) $\Delta \alpha$				
$2400,0  \ 2483,5 \ \text{MHz}$ Attenuation $\qquad \qquad \alpha$	_	0,5	1,5	dB
100,0 960,0 MHz	40	44	_	dB
960,0 2150,0 MHz	32	38		dB
2150,0 2170,0 MHz	30	36	_	dB
2170,0 2250,0 MHz	20	35		dB
2250,0 2295,0 MHz	15	21	_	dB
2295,0 2300,0 MHz	12	20	_	dB
2550,0 2600,0 MHz	15	20	_	dB
2600,0 2650,0 MHz	18	23	_	dB
2650,0 2800,0 MHz	20	24	_	dB
2800,0 4000,0 MHz	25	30	_	dB
4000,0 6000,0 MHz	30	50	_	dB

<sup>\*)</sup>  $T = +25 \, ^{\circ}\text{C}$ 



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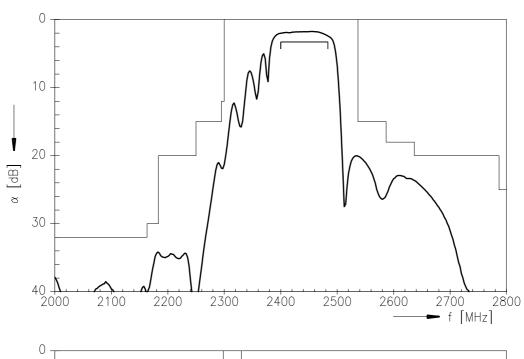
Low-Loss Filter

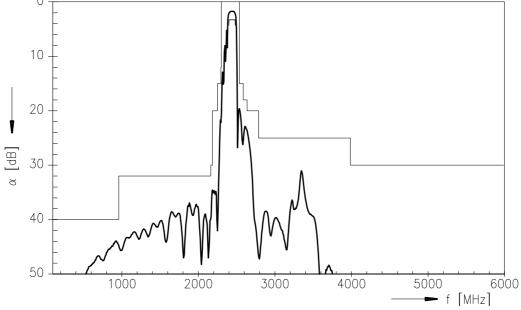
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B7841

2441,75 MHz

# **Transfer function**







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**Data Sheet** 

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