



# SAW Components

## Rx SAW Filter

LTE Band 13

**Series/type:**                    **B9476**  
   **B39751B9476M410**

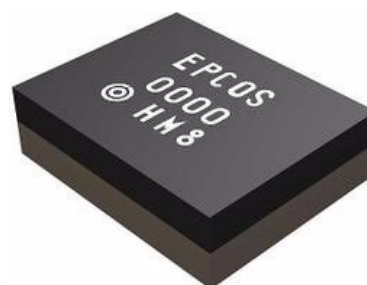
**Date:**                                **March 23, 2011**  
**Version:**                           **2.1**

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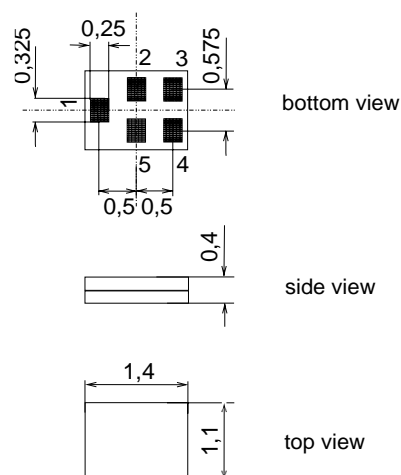
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**Application**

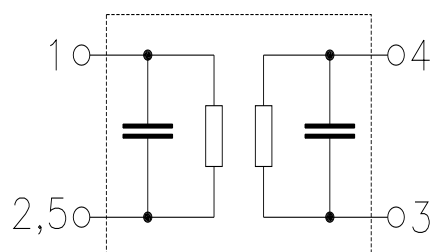
- Rx SAW filter for mobile telephone  
LTE Band 13 systems
- Rx Path
- Unbalanced / balanced operation
- Low insertion attenuation
- High Tx frequencies attenuation
- Usable passband 10 MHz


**Features**

- Package size 1.4 x 1.1 mm<sup>2</sup>,  
package height 0.4 mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


**Pin configuration**

- 1 Input
- 3, 4 Output
- 2, 5 To be grounded



**SAW Components**
**B9476**
**Rx SAW Filter**
**751.0 MHz**
**DataSheet**

**Characteristics**

Temperature range for specification:	$T = -20\text{ }^{\circ}\text{C to }+85\text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50\text{ }\Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 100\text{ }\Omega$ (balanced)

		min.	typ. @ 25 °C	max.		
<b>Center frequency</b>	$f_C$	—	751.0	—	MHz	
<b>Maximum insertion attenuation</b>						
746.0 ... 756.0 MHz	$\alpha_{\max}$	—	2.0	3.0	dB	CTQ
<b>Amplitude ripple (p-p)</b>						
746.0 ... 756.0 MHz	$\Delta\alpha$	—	0.7	1.8	dB	
<b>Input VSWR</b>						
746.0 ... 756.0 MHz		—	1.5	2.0		
<b>Output VSWR</b>						
746.0 ... 756.0 MHz		—	1.6	2.0		
<b>Common mode rejection ratio</b>						
746.0 ... 756.0 MHz		25	35	—		
<b>Attenuation</b>	$\alpha$					
10.0 ... 722.0 MHz		50	55	—	dB	
777.0 ... 780.0 MHz		44	48	—	dB	
780.0 ... 787.0 MHz		46	50	—	dB	
787.0 ... 3000.0 MHz		50	55	—	dB	
3001.0 ... 6000.0 MHz		40	48	—	dB	

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**Characteristics**

Temperature range for specification:	$T = -30\text{ }^{\circ}\text{C to }+85\text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 100\ \Omega$ (balanced)

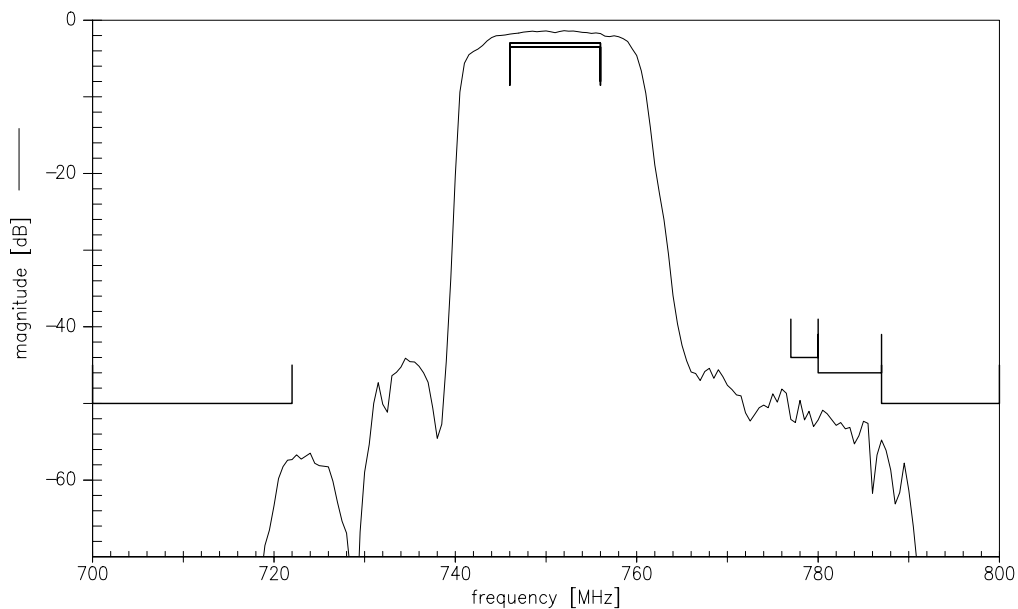
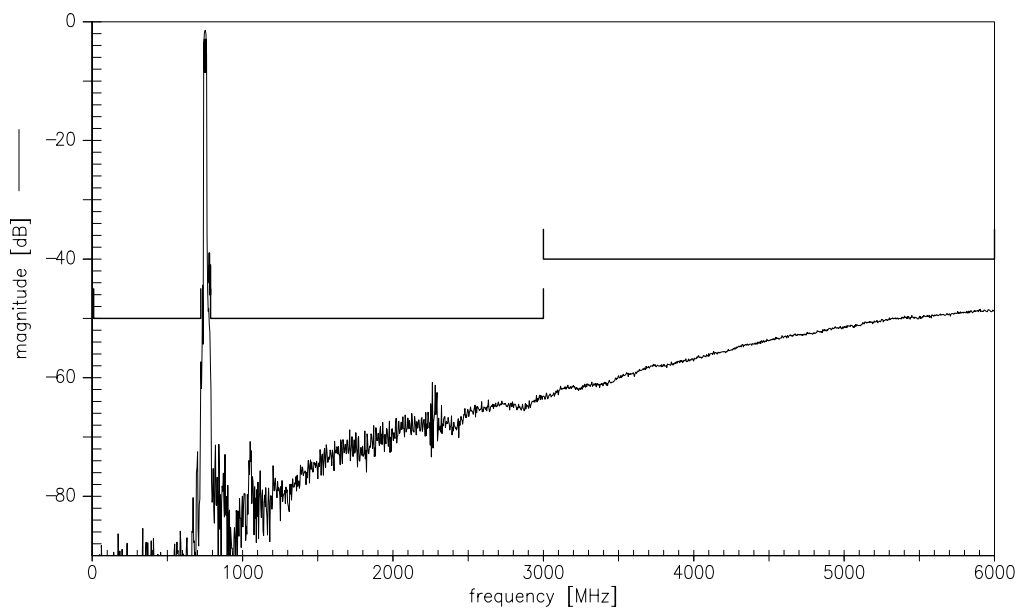
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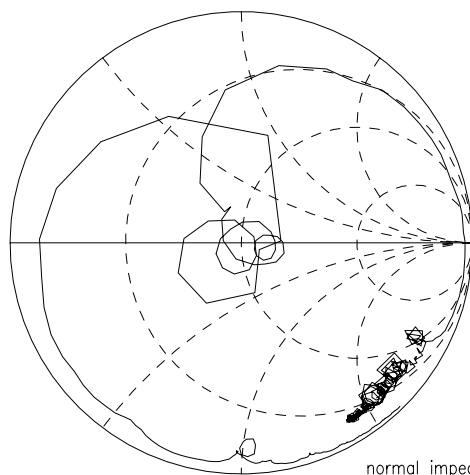
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**Maximum ratings**

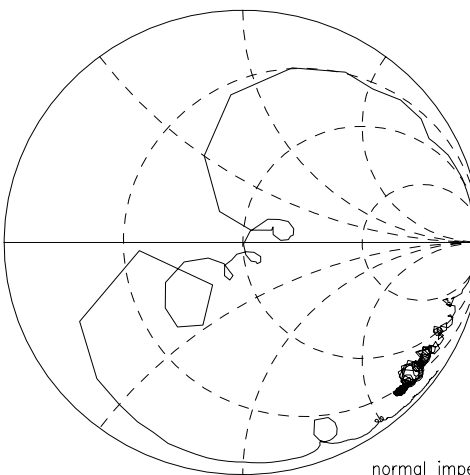
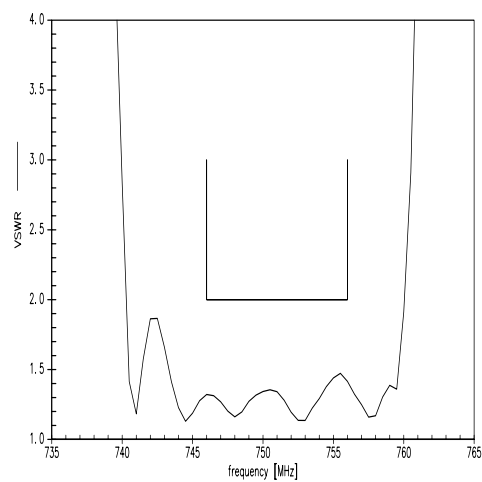
Operable temperature range	T	−30/+85	°C	machine model, 1 pulse
Storage temperature range	T <sub>stg</sub>	−40/+85	°C	
DC voltage	V <sub>DC</sub>	5	V	
ESD voltage	V <sub>ESD</sub>	100 <sup>1)</sup>	V	
Input power	P <sub>IN</sub>	10	dBm	

<sup>1)</sup> acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

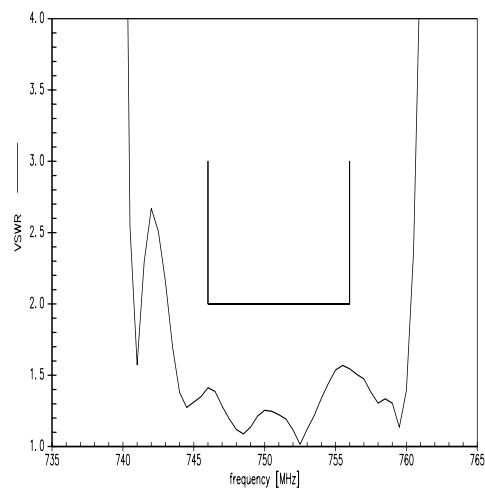
**Transfer function (narrow band)**

**Transfer function (wide band)**




normal impedance: 50.00 Ω



normal impedance: 100.00 Ω



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<b>DataSheet</b>	

## References

<b>Type</b>	B9476
<b>Ordering code</b>	B39751B9476M410
<b>Marking and package</b>	C61157-A8-A3
<b>Packaging</b>	F61074-V8237-Z000
<b>Date codes</b>	I_1126
<b>S-parameters</b>	B9476_NB.s3p B9476_WB.s3p See file header for port/pin assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
<b>Matching coils</b>	See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a>

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