



SAW Components

Rx SAW Filter

LTE Band 13

Series/type: **B9476**
 B39751B9476M410

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

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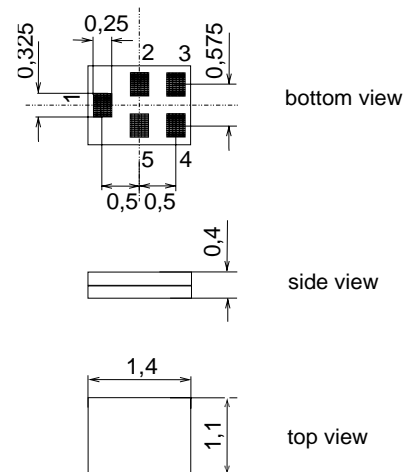
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Application

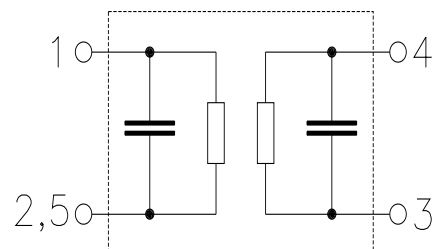
- Rx SAW filter for mobile telephone
LTE Band 13 systems
- Rx Path
- Unbalanced / balanced operation
- Low insertion attenuation
- High Tx frequencies attenuation
- Usable passband 10 MHz


Features

- Package size 1.4 x 1.1 mm²,
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



Please read *cautions and warnings and important notes* at the end of this document.

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751.0 MHz

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Characteristics

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

		min.	typ. @ 25 °C	max.		
Center frequency	f_C	—	751.0	—	MHz	
Maximum insertion attenuation						
746.0 ... 756.0 MHz	α_{\max}	—	2.0	3.0	dB	CTQ
Amplitude ripple (p-p)						
746.0 ... 756.0 MHz	$\Delta\alpha$	—	0.7	1.8	dB	
Input VSWR						
746.0 ... 756.0 MHz		—	1.5	2.0		
Output VSWR						
746.0 ... 756.0 MHz		—	1.6	2.0		
Common mode rejection ratio						
746.0 ... 756.0 MHz		25	35	—		
Attenuation	α					
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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751.0 MHz
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Characteristics

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

		min.	typ. @ 25 °C	max.		
Center frequency	f_C	—	751.0	—	MHz	
Maximum insertion attenuation						
746.0 ... 756.0 MHz	α_{\max}	—	2.0	3.5	dB	CTQ
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746.0 ... 756.0 MHz		—	1.6	2.0		
Common mode rejection ratio						
746.0 ... 756.0 MHz		25	35	—		
Attenuation	α					
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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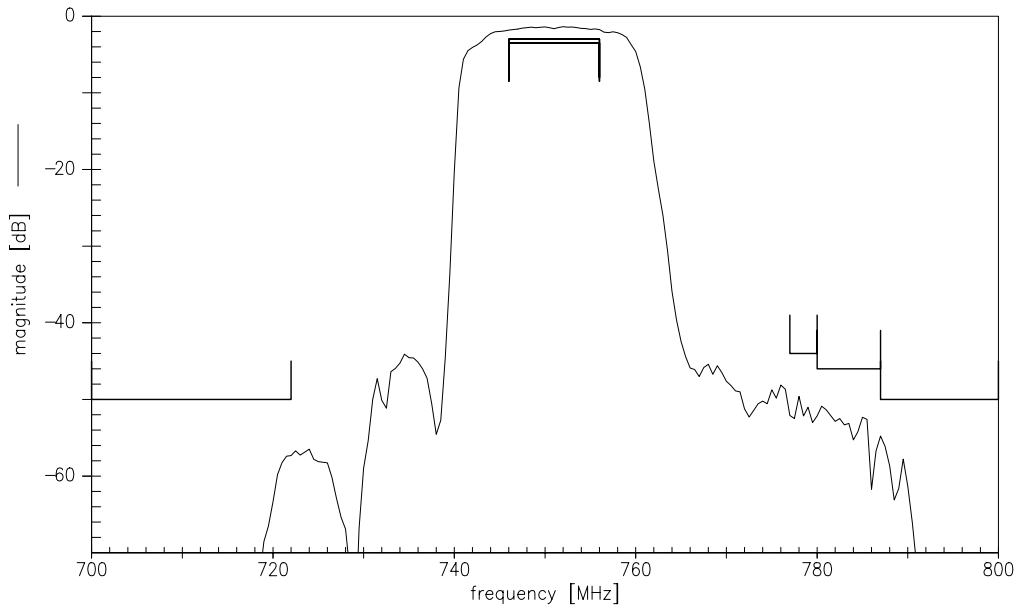
Maximum ratings

Operable temperature range	T	-30/+85	°C	machine model, 1 pulse
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	
Input power	P _{IN}	10	dBm	

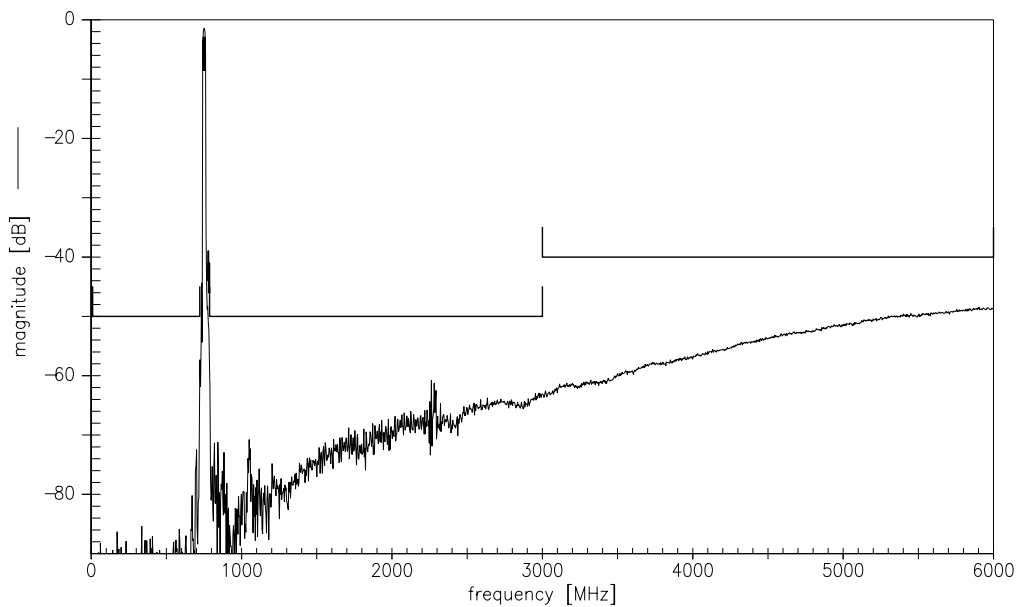
1) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function (narrow band)



Transfer function (wide band)



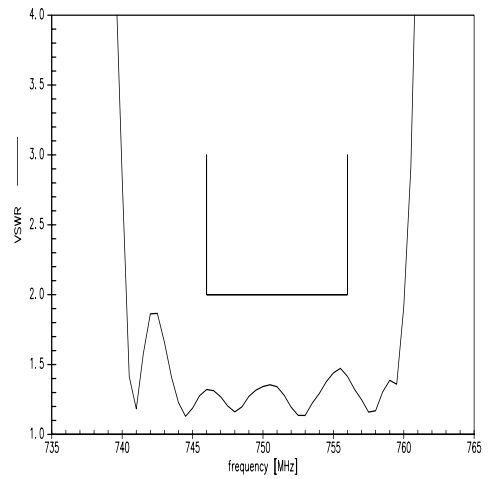
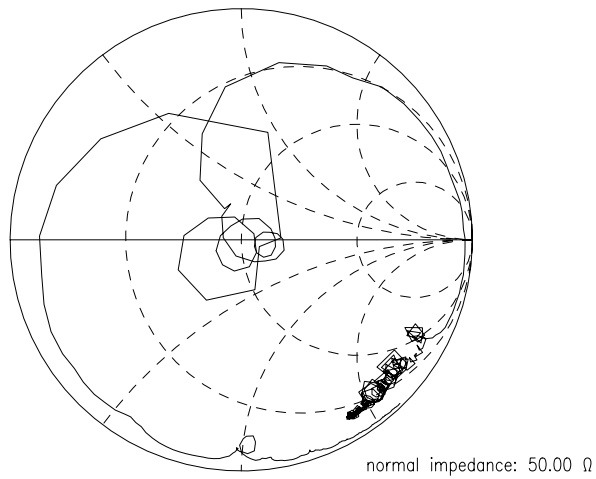
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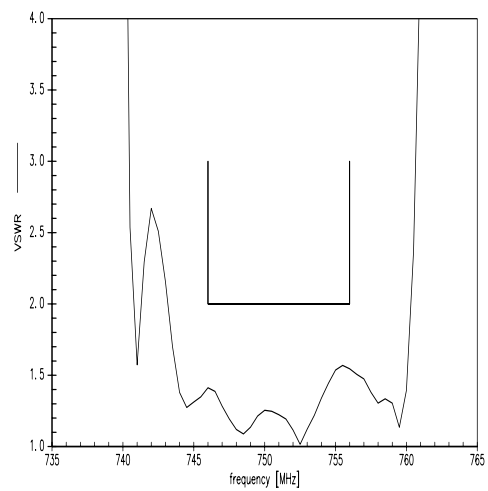
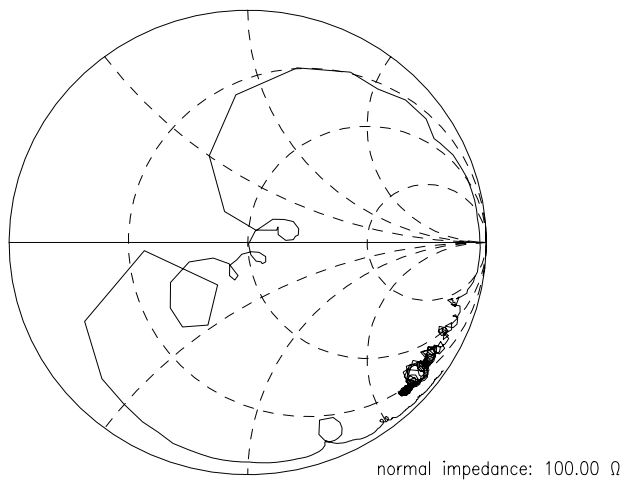


Smith Chart

S11 VSWR



S22 VSWR



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References

Type	B9476
Ordering code	B39751B9476M410
Marking and package	C61157-A8-A3
Packaging	F61074-V8237-Z000
Date codes	I_1126
S-parameters	B9476_NB.s3p B9476_WB.s3p See file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	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."
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

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