



SAW Components

SAW Rx filter

GSM850 / WCDMA band V

Series/type:	B9432
Ordering code:	B39881B9432M410
Date:	May 11, 2007
Version:	2.3



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B9432

SAW Rx filter

881.5 MHz

Data Sheet



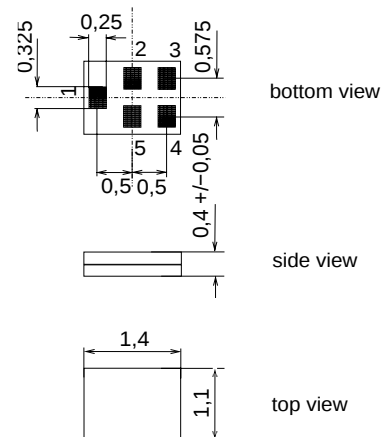
Application

- Low-loss RF filter for mobile telephone
GSM850/WCDMA Band V systems, receive path (RX)
- Useable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 100 Ω
- Suitable to GPRS class 1 to 12



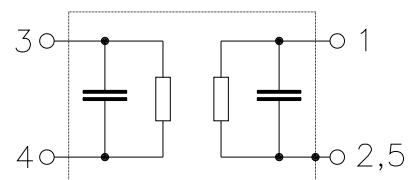
Features

- Package size 1.4 x 1.1 x 0.4 mm³
- Package code QCS5I
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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





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Characteristics

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

B9432					
		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	881.5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
869.0 ... 894.0 MHz		—	1.8	2.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
869.0 ... 894.0 MHz		—	0.7	1.3	dB
Amplitude ripple at 5 MHz BW	$\Delta\alpha$				
869.0 ... 894.0 MHz		—	0.5	0.9	dB
Group delay variation at 5 MHz BW					
869.0 ... 894.0 MHz		—	18	30	ns
Error Vector Magnitude¹⁾ @ f_{Carrier}					
871.4 ... 891.6 MHz		—	1.8	2.5	%
Input return loss					
869.0 ... 894.0 MHz		10	14	—	dB
Output return loss					
869.0 ... 894.0 MHz		10	14	—	dB
Output amplitude balance (S_{31}/S_{21})					
869.0 ... 894.0 MHz		-0.8	-0.4/0.2	0.8	dB
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)					
869.0 ... 894.0 MHz		-8	-5/+5	8	°
Attenuation	α				
DC ... 840.0 MHz		47	51	—	dB
840.0 ... 849.0 MHz		40	50	—	dB
914.0 ... 950.0 MHz		24	28	—	dB
950.0 ... 1150.0 MHz		45	50	—	dB
1150.0 ... 1250.0 MHz		40	47	—	dB
1250.0 ... 3000.0 MHz		45	50	—	dB
3000.0 ... 6000.0 MHz		40	58	—	dB

¹⁾ Error Vector Magnitude (EVM) based on definition given in 3GPP TS 25.141.



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Maximum ratings

Operable temperature range	T	−30/+85	°C	
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 10 pulses
Input power at				
GSM850, GSM900	P _{IN}	15	dBm	effective power in the on-state
GSM1800, GSM1900	P _{IN}	15	dBm	duty cycle 4:8
Tx bands				

¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



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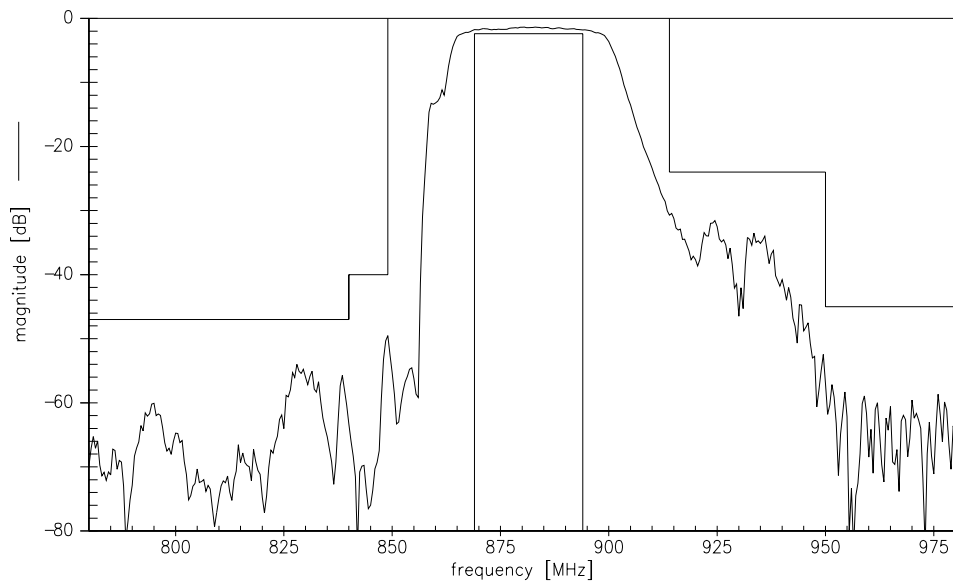
SAW Rx filter

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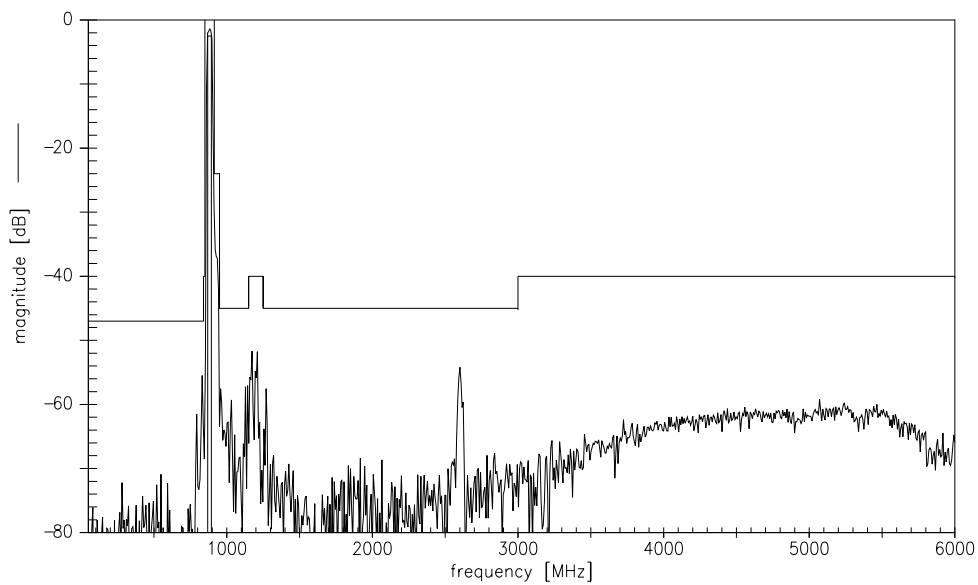
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Transfer function



Transfer function (wideband)



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



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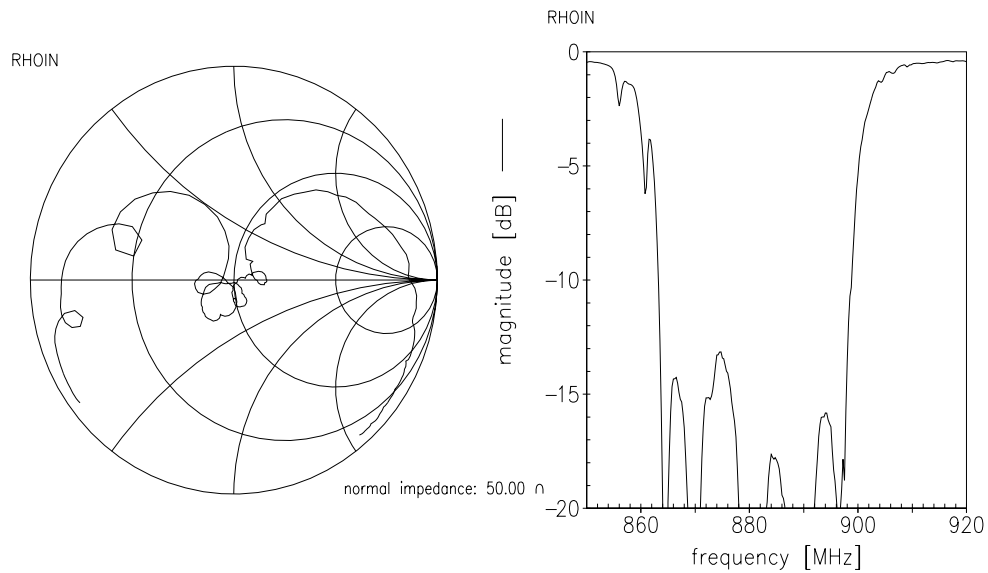
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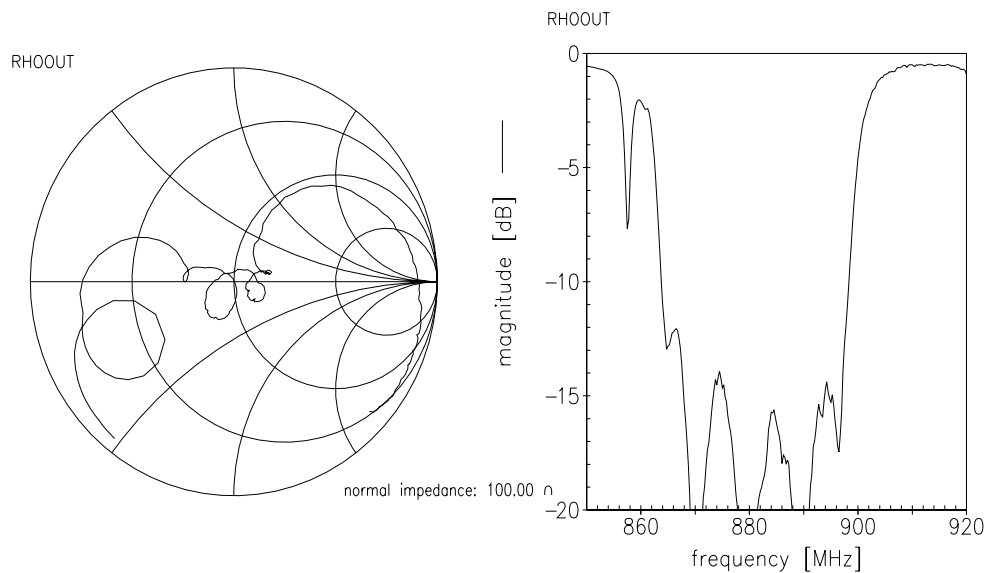
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S11



S22



**SAW Components****B9432****SAW Rx filter****881.5 MHz**

Data Sheet

**References**

Type	B9432
Ordering code	B39881B9432M410
Marking and package	C61157-A8-A3
Packaging	F61074-V8212-Z000
Date codes	L_1126
S-parameters	B9432_NB.s3p B9432_WB.s3p
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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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Surface Acoustic Wave Components Division

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