



# SAW Components

## SAW filter

GSM RF Filter

<b>Series/type:</b>	<b>B4125</b>
<b>Ordering code:</b>	<b>B39881B4125U410</b>

Date:	June 26, 2012
Version:	2.1

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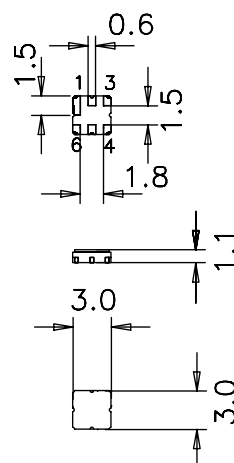
### Application

- Low-loss RF filter for AMPS mobile telephone system, receive path
- Low amplitude ripple
- Usable passband of 25 MHz



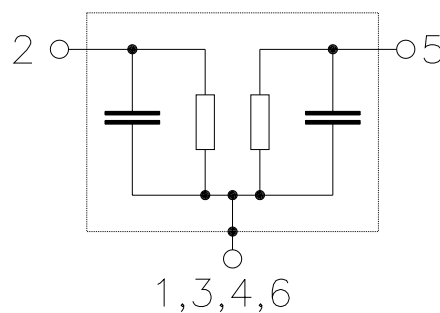
### Features

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 1**
- Filter surface passivated



### Pin configuration

- 2 Input unbalanced
- 5 Output unbalanced
- 1,3,4,6 To be grounded



**SAW Components**
**B4125**
**SAW filter**
**881.5 MHz**
**Data sheet**

**Characteristics**

Temperature range for specification:  $T = -40\text{ }^{\circ}\text{C to }+85\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\text{ }\Omega$   
 Terminating load impedance:  $Z_L = 50\text{ }\Omega$

		min.	typ. @ 25 °C	max.	
<b>Centre frequency</b>	$f_C$	—	881.5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2.6	3.0	dB
	869.0 ... 894.0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1.1	1.5	dB
	869.0 ... 894.0 MHz				
<b>VSWR</b>					
Input	869.0 ... 894.0 MHz	—	1.4	1.6	
Output	869.0 ... 894.0 MHz	—	1.4	1.6	
<b>Attenuation</b>	$\alpha$				
	0.0 ... 824.0 MHz	35.0	50.0	—	dB
	824.0 ... 849.0 MHz	35.0	45.0	—	dB
	970.0 ... 997.0 MHz	35.0	60.0	—	dB
	997.0 ... 1150.0 MHz	40.0	60.0	—	dB
	1150.0 ... 1500.0 MHz	30.0	50.0	—	dB
	1500.0 ... 2000.0 MHz	25.0	38.0	—	dB
	2000.0 ... 6000.0 MHz	20.0	25.0	—	dB

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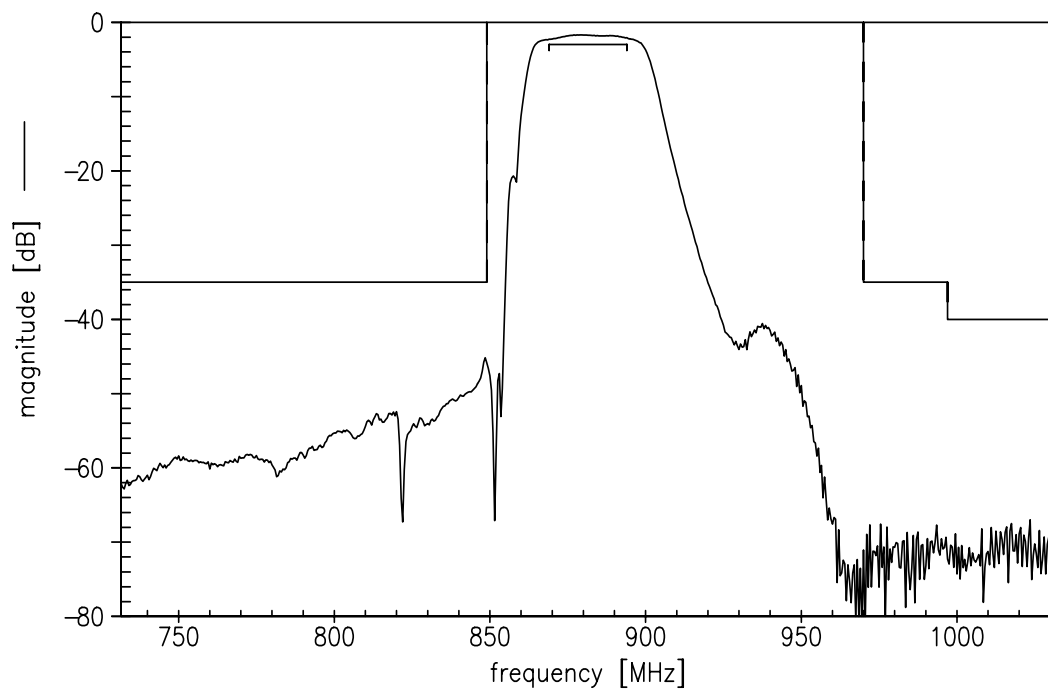
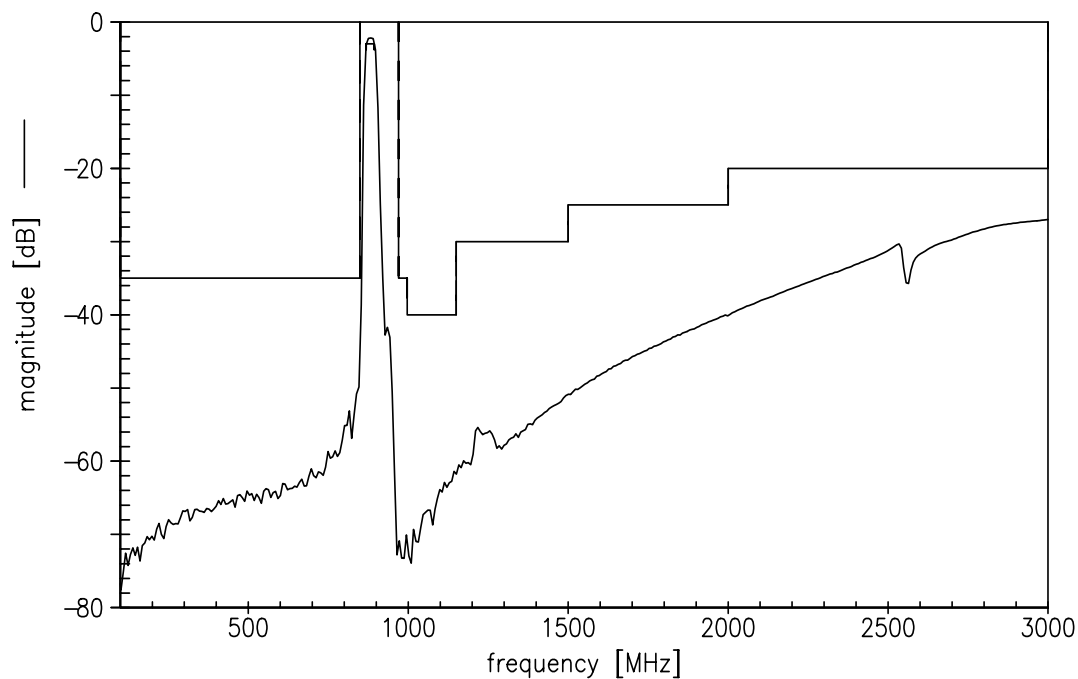
Data sheet

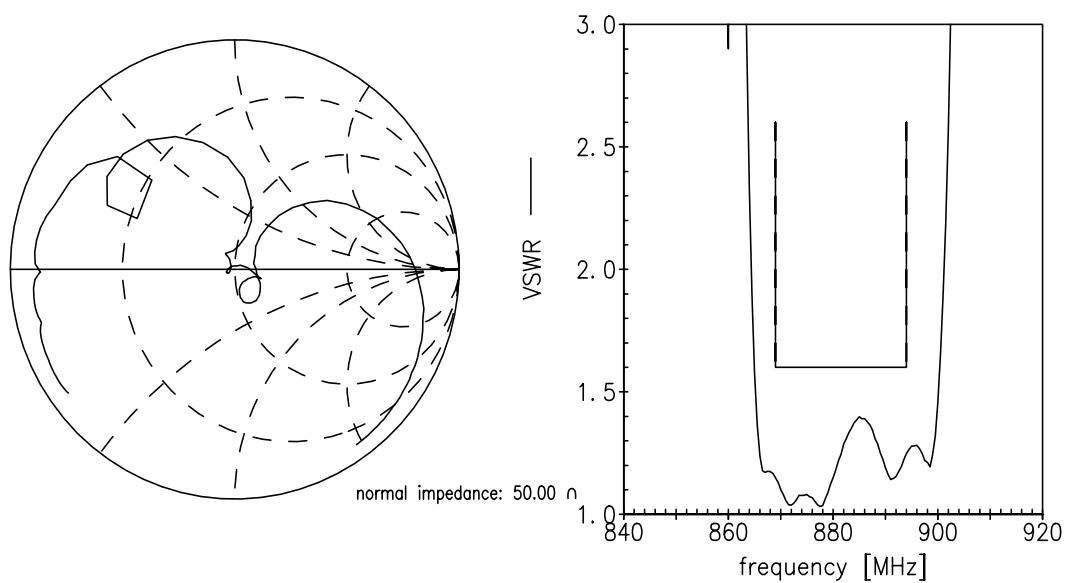
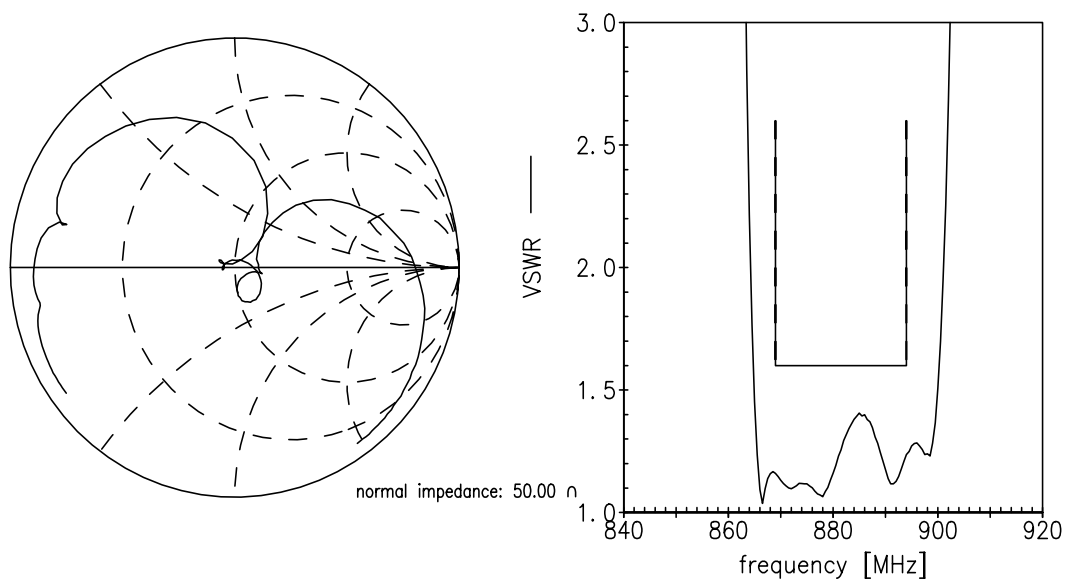


### Maximum ratings

Operable temperature range	T	−40/+85	°C	
Storage temperature range	T <sub>stg</sub>	−40/+85	°C	
DC voltage	V <sub>DC</sub>	3	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 1 pulse
Input power				
869.0 ... 894.0 MHz	P <sub>IN</sub>	13	dBm	Continuous Wave, 100000hrs, 85°C

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

**Transfer function**

**Transfer function (wideband)**




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<b>SAW filter</b>	<b>881.5 MHz</b>

Data sheet



## References

<b>Type</b>	B4125
<b>Ordering code</b>	B39881B4125U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B4125_NB.s2p, B4125_WB.s2p 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."
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