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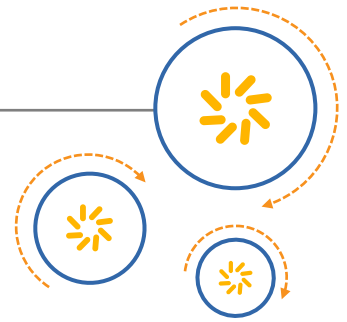
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RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

## SAW Components

### SAW Rx filter

R-GSM

Series/type:	B5056
Ordering code:	B39901B5056U410
Date:	December 4, 2007
Version:	2.1

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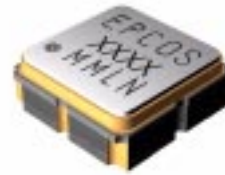
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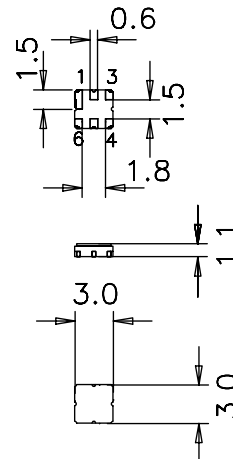
**Data Sheet**

**Application**

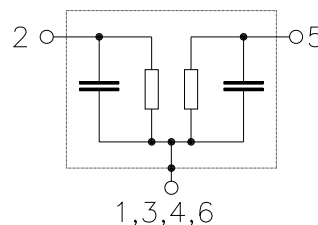
- Low-loss RF filter for base station R-GSM systems, receive path (Rx)
- Low amplitude ripple
- Unbalanced to unbalanced operation
- No external matching required
- Usable passband 39 MHz


**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)**


**Pin configuration**

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



**Data Sheet**

**Characteristics**

Temperature range for specification:  $T = -30\text{ }^{\circ}\text{C to }+80\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\Omega$   
 Terminating load impedance:  $Z_L = 50\Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	895.5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2.1	3.2 <sup>1)</sup>	dB
876.0 ... 915.0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1.2	2.0 <sup>2)</sup>	dB
876.0 ... 915.0 MHz					
<b>Return loss (VSWR)</b>		—	2.2	3.0	
876.0 ... 915.0 MHz					
<b>Attenuation</b>	$\alpha$				
0.3 ... 856.0 MHz		17	19	—	dB
925.0 ... 935.0 MHz		3 <sup>3)</sup>	10	—	dB
935.0 ... 2000.0 MHz		20	22	—	dB

1) 2.5dB max at +25°C

2) 1.5dB max at +25°C

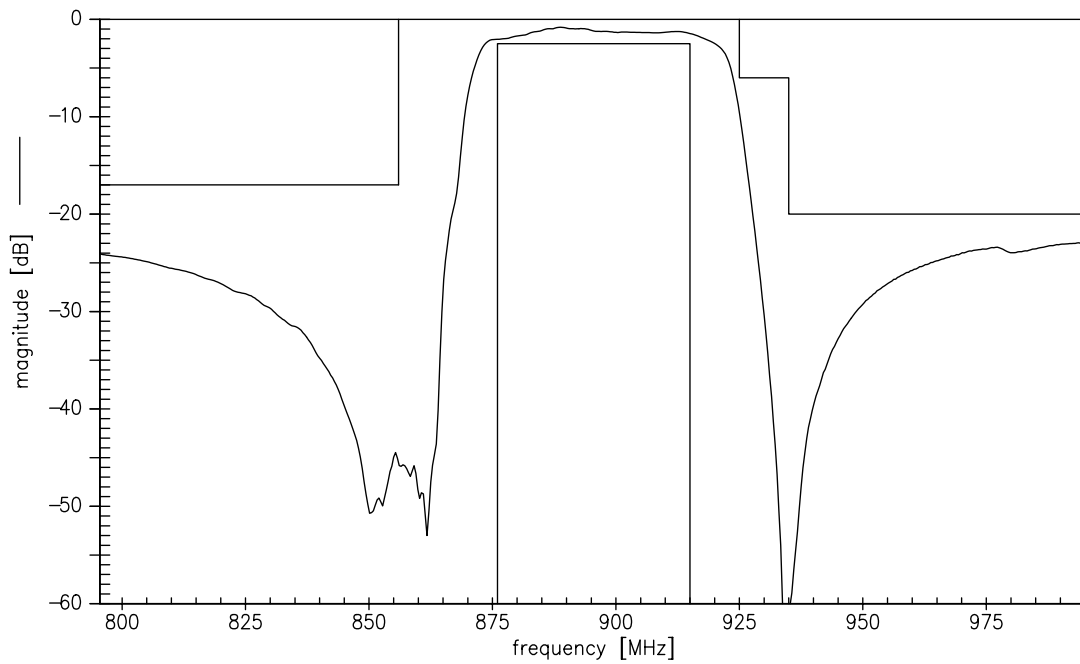
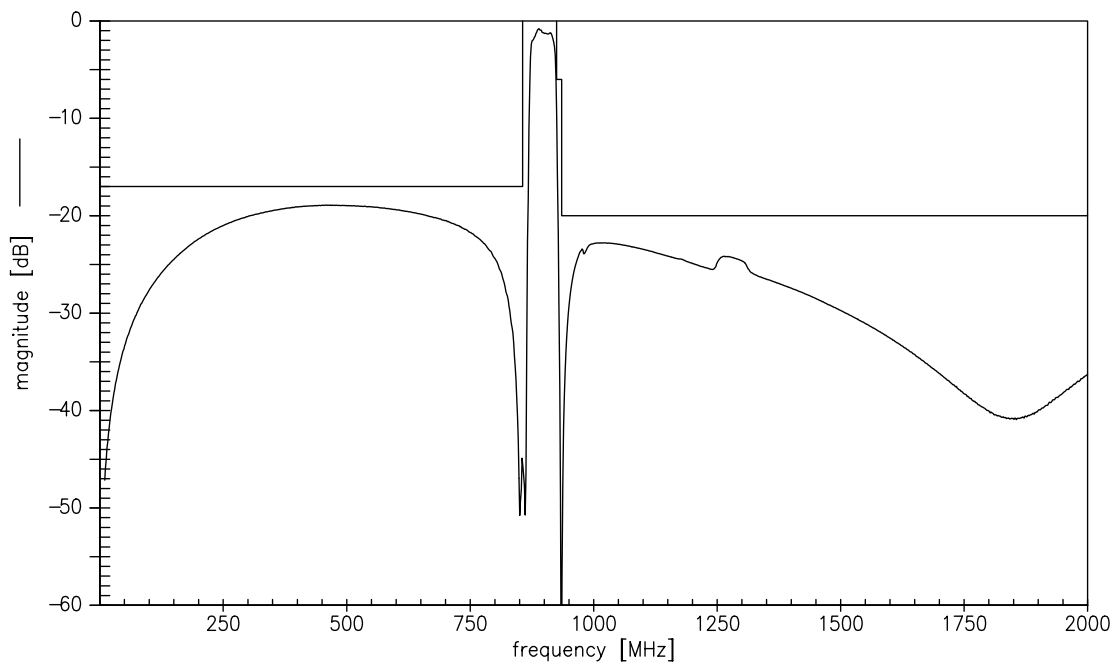
3) 6.0dB max at +25°C


**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>	5	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 10 pulses
Input power at 876.0 ... 915.0MHz	P <sub>IN</sub>	17	dBm	CW

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




**Transfer function**

**Transfer function (wideband)**


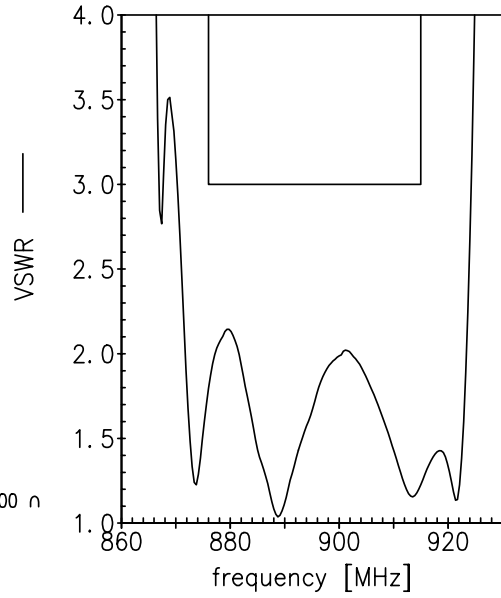
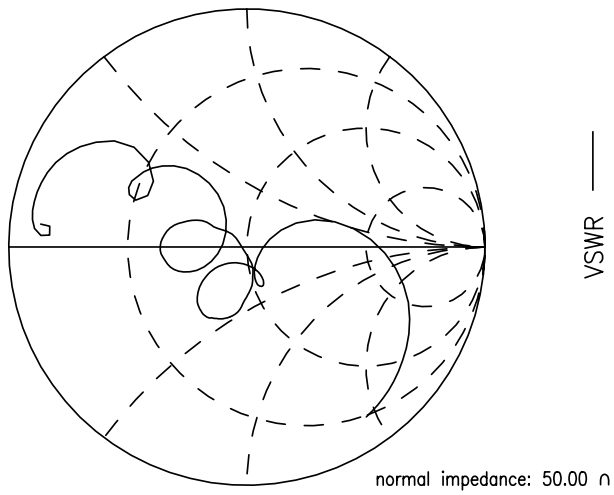


Data Sheet

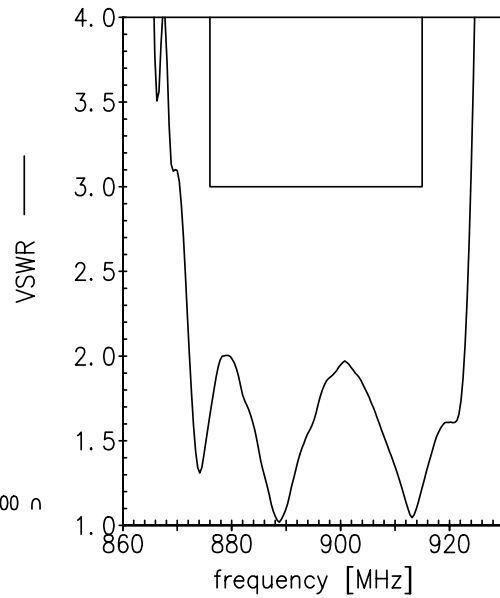
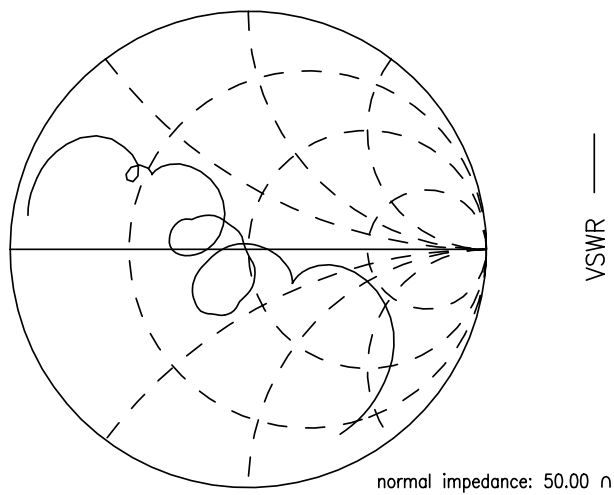


Smith charts

**S<sub>11</sub> function**



**S<sub>22</sub> function**




**References**

<b>Type</b>	B5056
<b>Ordering code</b>	B39901B5056U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B5056_NB.s2p B5056_WB.s2p
<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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