



# SAW Components

## SAW Rx filter

GSM 1800 Rx

**Series/type:** B3832  
**Ordering code:** B39172B3832U410

**Date:** June 27, 2012  
**Version:** 2.0

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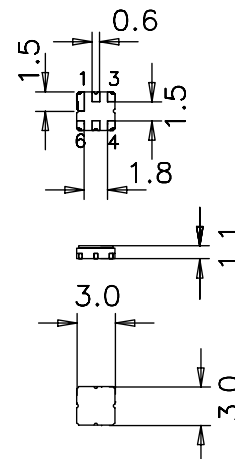
Data sheet


**Application**

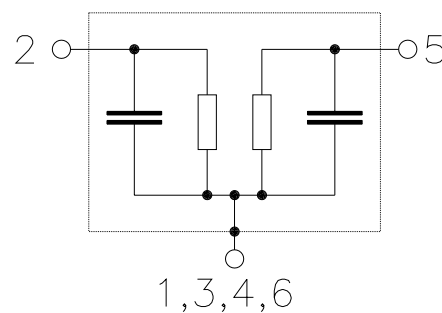
- Low-loss filter GSM 1800 Rx
- Unbalanced to Unbalanced operation
- Usable passband of 75MHz
- No matching required for operation at 50Ω


**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



Data sheet


**Characteristics**

Temperature range for specification:  $T = -0\text{ }^{\circ}\text{C to }+70\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Centre frequency</b>	$f_C$	—	1747.5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
1710.0 ... 1785.0 MHz		—	3.1	4.0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
1710.0 ... 1785.0 MHz		—	1.1	2.0	dB
<b>VSWR</b>					
Input 1710.0 ... 1785.0 MHz		—	2.2	3.0	
Output 1710.0 ... 1785.0 MHz		—	2.2	3.0	
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
1330.0... 1405.0 MHz		42	45	—	dB
1464.0... 1539.0 MHz		40	43	—	dB
1615.0 MHz		28	35	—	dB
1690.0 MHz		5	12	—	dB
1805.0 MHz		5	14	—	dB
1880.0 MHz		25	32	—	dB
1956.0... 2031.0 MHz		32	34	—	dB


**Maximum ratings**

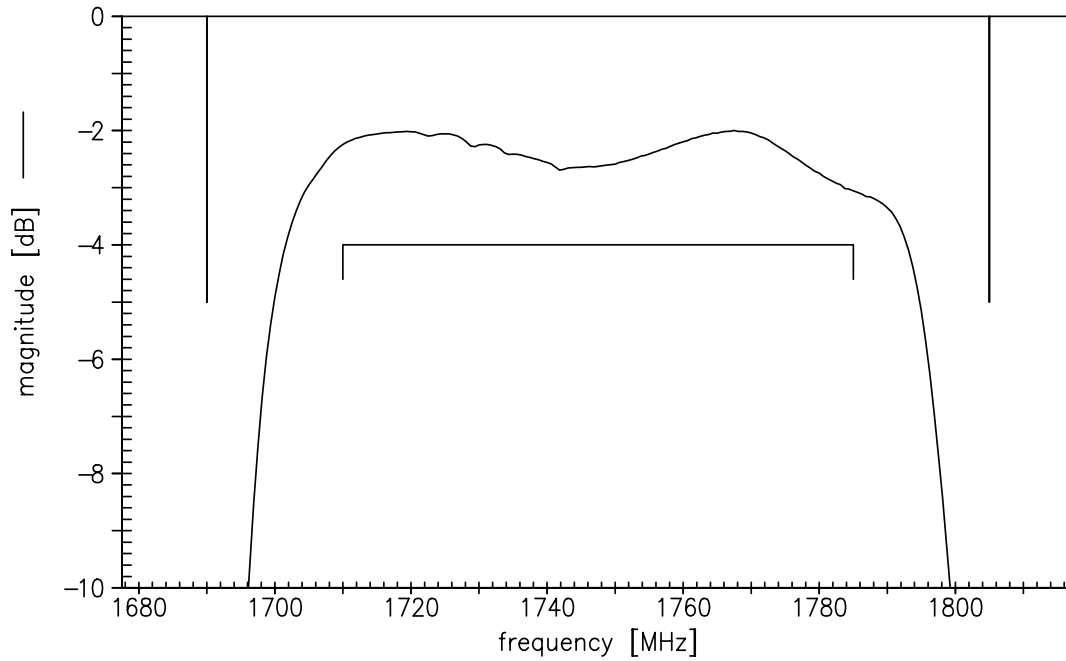
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	V <sub>DC</sub>	0	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 1 pulse
Input power				
1710.0 ... 1785.0 MHz	P <sub>IN</sub>	9.5	dBm	continuous wave, 100000 hrs, 85°C

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

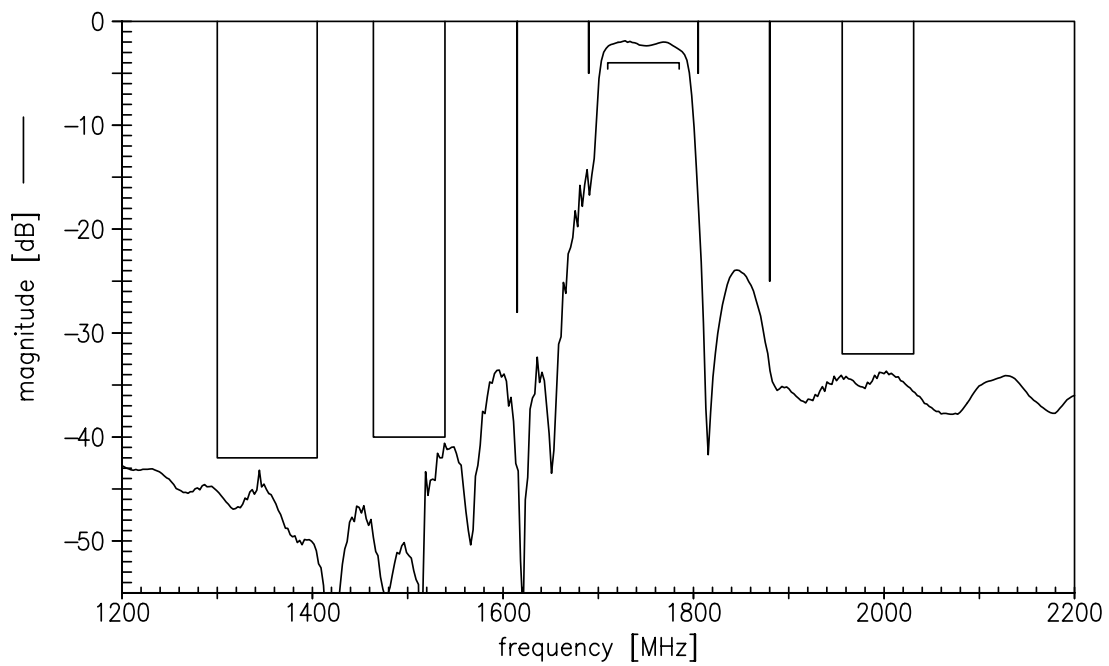
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Transfer function



Transfer function (wideband)

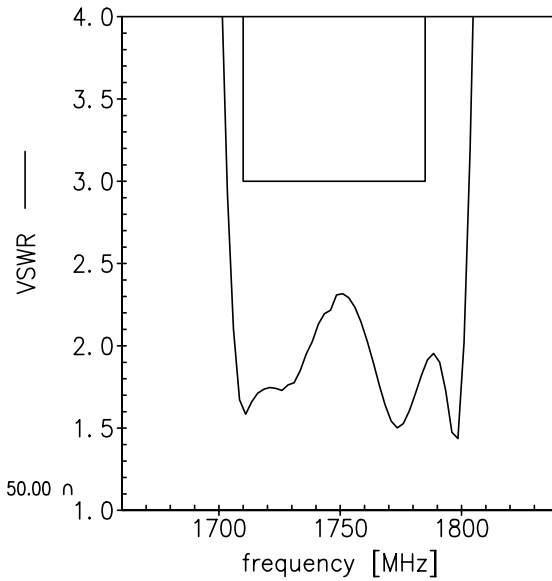
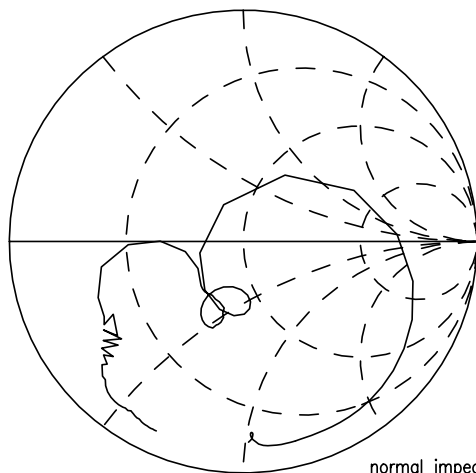


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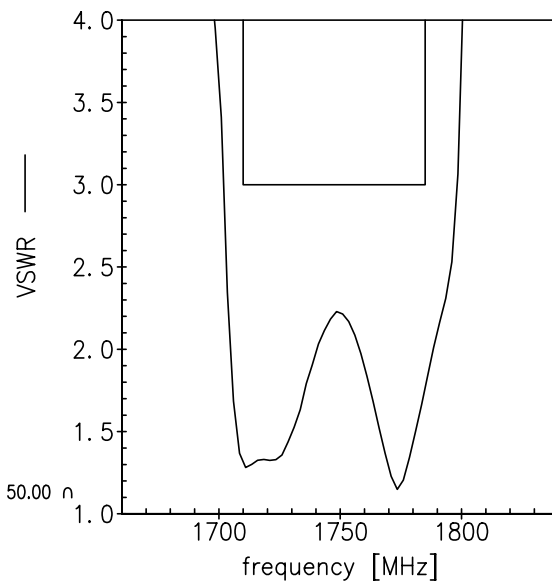
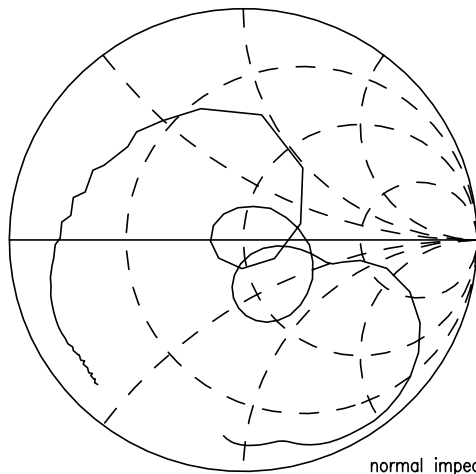


Smith charts

S<sub>11</sub> function



S<sub>22</sub> function



<b>SAW Components</b>	<b>B3832</b>
<b>SAW Rx filter</b>	<b>1747.5 MHz</b>

Data sheet



#### References

<b>Type</b>	B3832
<b>Ordering code</b>	B39172B3832U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3832_NB.s2p, B3832_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."
<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> for a large variety of matching coils.

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