



## **SAW Components**

### **SAW filter**

W-CDMA

<b>Series/type:</b>	<b>B7750</b>
<b>Ordering code:</b>	<b>B39212B7750C810</b>
<b>Date:</b>	<b>September 11, 2008</b>
<b>Version:</b>	<b>2.0</b>



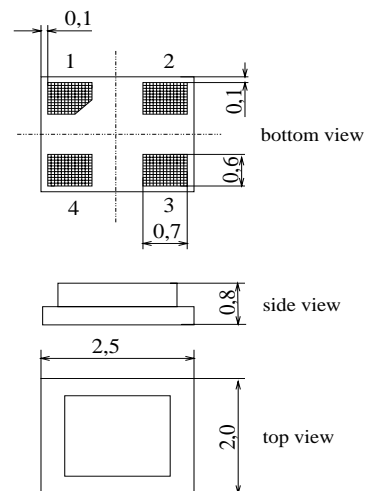
**Application**

- RF filter for mobile telephone UMTS systems, receive path
- Low insertion loss, low amplitude ripple
- Usable passband 60 MHz



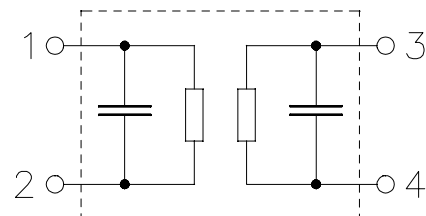
**Features**

- Package size 2.5 x2.0 x 0.8 mm<sup>3</sup>
- Package code DCS4D
- RoHS compatible
- Approximate weight 0.012 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



**Pin configuration**

- 1 Input
- 3 Output
- 2,4 Ground





**SAW Components**

**B7750**

**SAW filter**

**2140.00 MHz**

Data sheet



**Characteristics**

Temperature range for specification: T = -20 to +85 °C  
 Terminating source impedance: Z<sub>S</sub> = 50 Ω  
 Terminating load impedance: Z<sub>L</sub> = 50 Ω

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	f <sub>C</sub>	—	2140.0	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>				
2110.0 ... 2170.0	MHz	—	2.6	2.8	dB
<b>Amplitude ripple (p-p)</b>	Δα				
2110.0 ... 2170.0	MHz	—	0.8	1.0	dB
<b>Input VSWR</b>					
2110.0 ... 2170.0	MHz	—	2.2	2.4	
<b>Output VSWR</b>					
2110.0 ... 2170.0	MHz	—	2.2	2.4	
<b>Absolute Attenuation</b>	α				
0.0 ... 1500.0	MHz	40	42	—	dB
1500.0 ... 1880.0	MHz	35	40	—	dB
1920.0 ... 1980.0	MHz	34	36	—	dB
2025.0 ... 2050.0	MHz	20	25	—	dB
2205.0 ... 2265.0	MHz	10	20	—	dB
2230.0 ... 2260.0	MHz	22	24	—	dB
2300.0 ... 2360.0	MHz	33	38	—	dB
2490.0 ... 2550.0	MHz	37	43	—	dB
2870.0 ... 2930.0	MHz	31	35	—	dB
4000.0 ... 6000.0	MHz	20	31	—	dB



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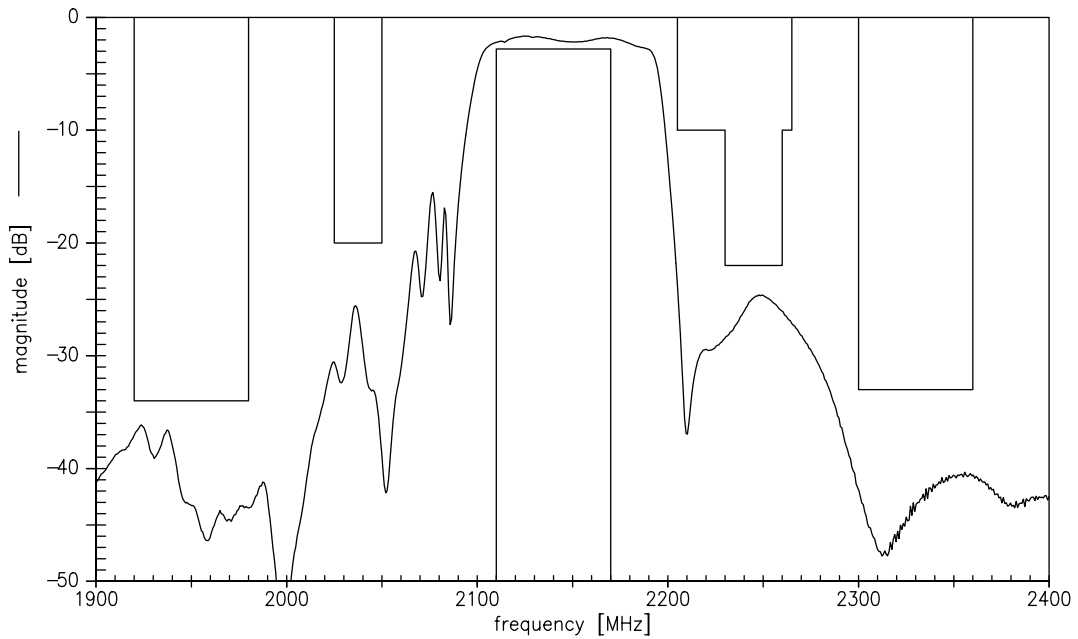
### Maximum ratings

Operable temperature range	T	-20/+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 max	P <sub>IN</sub>	13	dBm	source and load impedance 50Ω

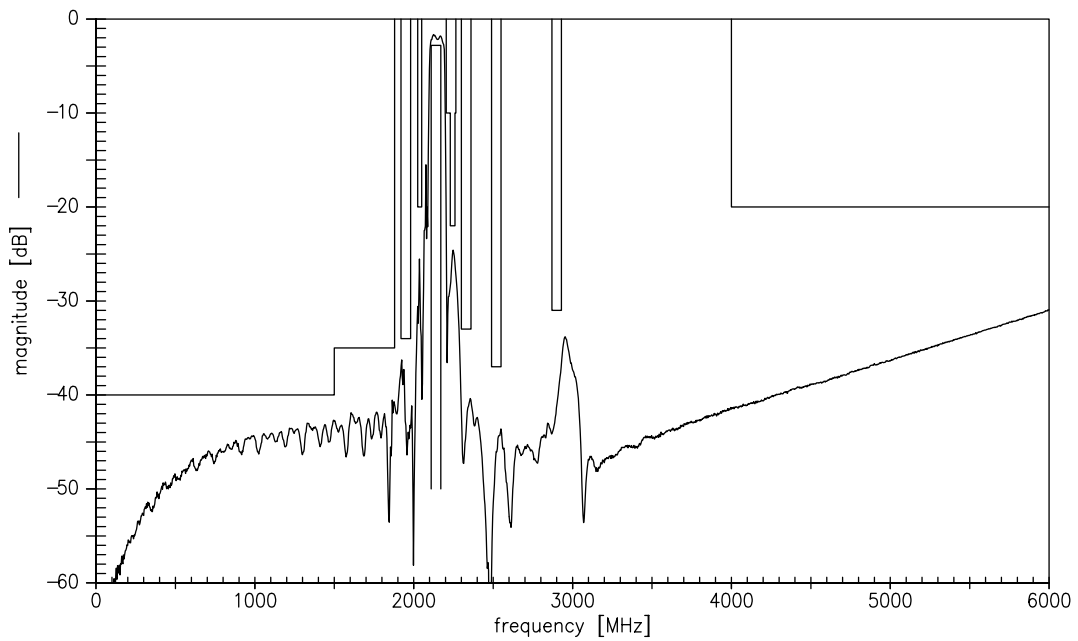
<sup>1)</sup> acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (wideband)

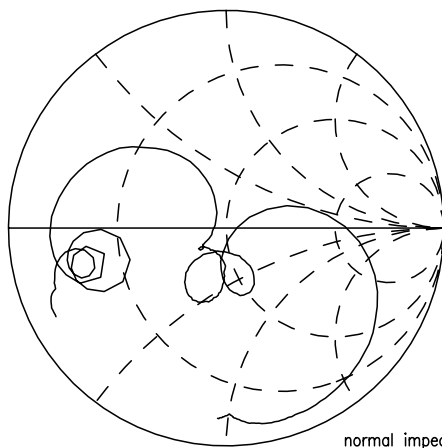


Data sheet

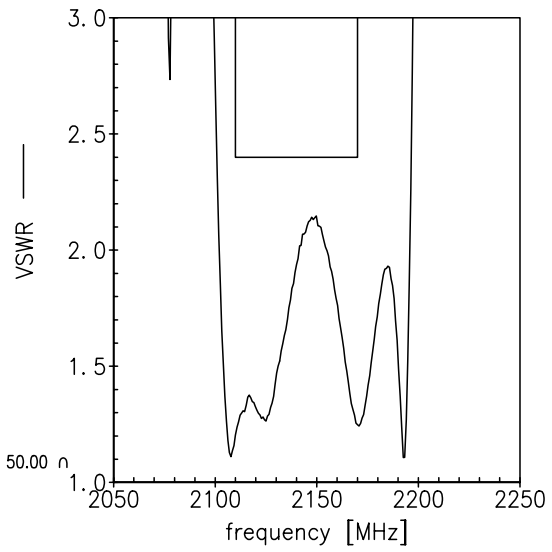


Smith charts

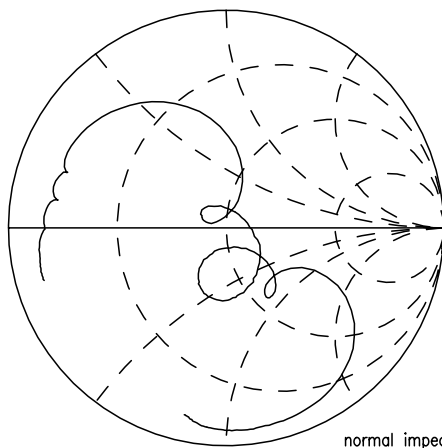
S<sub>11</sub> function



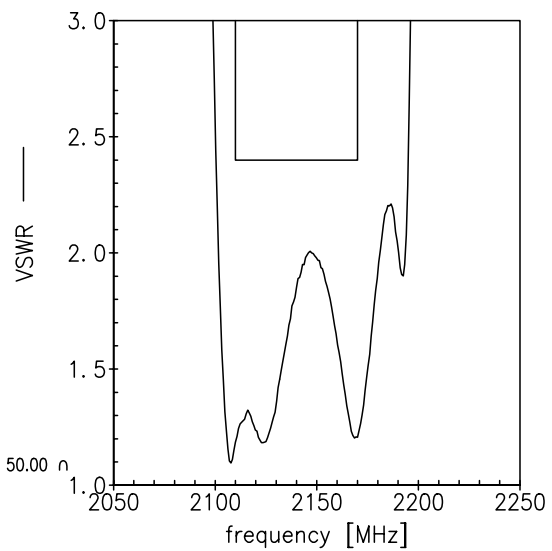
normal impedance: 50.00 Ω



S<sub>22</sub> function



normal impedance: 50.00 Ω





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<b>SAW filter</b>	<b>2140.00 MHz</b>
Data sheet	

**References**

<b>Type</b>	B7750
<b>Ordering code</b>	B39212B7750C810
<b>Marking and package</b>	C61157-A7-A118
<b>Packaging</b>	F61074-V8153-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B7750_NB.s3p B7750_WB.s3p 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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