



## SAW Components

### SAW filter

CDMA BTS

<b>Series/type:</b>	<b>B4182</b>
<b>Ordering code:</b>	<b>B39182B4182U410</b>
<b>Date:</b>	<b>November 16, 2009</b>
<b>Version:</b>	<b>2.0</b>



SAW Components

B4182

SAW filter

1882.5 MHz

Data sheet

**SMD**

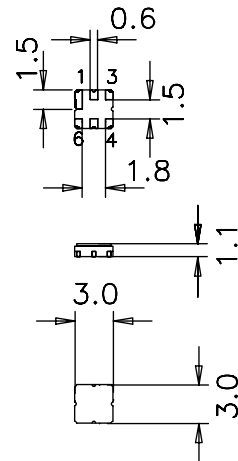
### Application

- Low-loss RF filter for Multicarrier Basestation (CD-MA) , receive path
- Low amplitude ripple
- No matching required for operation at 50Ω
- Usable passband 65 MHz



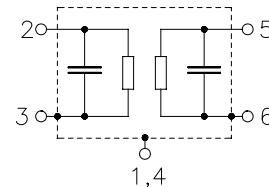
### Features

- 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
- 5 Output
- 1,3,4,6 To be grounded



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



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**Characteristics**

Temperature range for specification:  $T = 25 \pm 2 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

			min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_c$			1882,5		MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	1850,0 ... 1915,0 MHz	—	2,5	3,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	1850,0 ... 1915,0 MHz	—	0,8	1,4	dB
<b>Return loss</b>		1850,0 ... 1915,0 MHz	9,0	10,0	—	dB
<b>Attenuation</b>	$\alpha_{\text{abs}}$	800,0 ... 1400,0 MHz	24,0	28,0	—	dB
		1400,0 ... 1745,0 MHz	25,0	28,0	—	dB
		1930,0 ... 1940,0 MHz	5,0	10,0	—	dB
		1940,0 ... 3000,0 MHz	20,0	23,0	—	dB



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**Characteristics**

Temperature range for specification:  $T = 0 \text{ to } +85^\circ \text{C}$   
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

			min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_c$			1882,5		MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	1850,0 ... 1915,0 MHz	—	2,9	3,5	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	1850,0 ... 1915,0 MHz	—	1,1	1,7	dB
<b>Return loss</b>		1850,0 ... 1915,0 MHz	9,0	10,0	—	dB
<b>Attenuation</b>	$\alpha_{\text{abs}}$	800,0 ... 1400,0 MHz	24,0	28,0	—	
		1400,0 ... 1746,0 MHz	25,0	28,0	—	dB
		1930,0 ... 1940,0 MHz	5,0	7,0	—	dB
		1940,0 ... 3000,0 MHz	20,0	23,0	—	dB



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Data sheet



**Characteristics**

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

			min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_c$			1882,5		MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	1850,0 ... 1915,0 MHz	—	2,9	4.0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	1850,0 ... 1915,0 MHz	—	1,1	2.2	dB
<b>Return loss</b>		1850,0 ... 1915,0 MHz	9,0	10,0	—	dB
<b>Attenuation</b>	$\alpha_{\text{abs}}$	800,0 ... 1400,0 MHz	24,0	28,0	—	
		1400,0 ... 1746,0 MHz	25,0	28,0	—	dB
		1930,0 ... 1940,0 MHz	3,0	7,0	—	dB
		1940,0 ... 3000,0 MHz	20,0	23,0	—	dB



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### 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 max 1930.0 ... 1990.0 MHz	P <sub>IN</sub>	12	dBm	continuous wave, 85 °C
	P <sub>IN</sub>	15	dBm	continuous wave, 55 °C

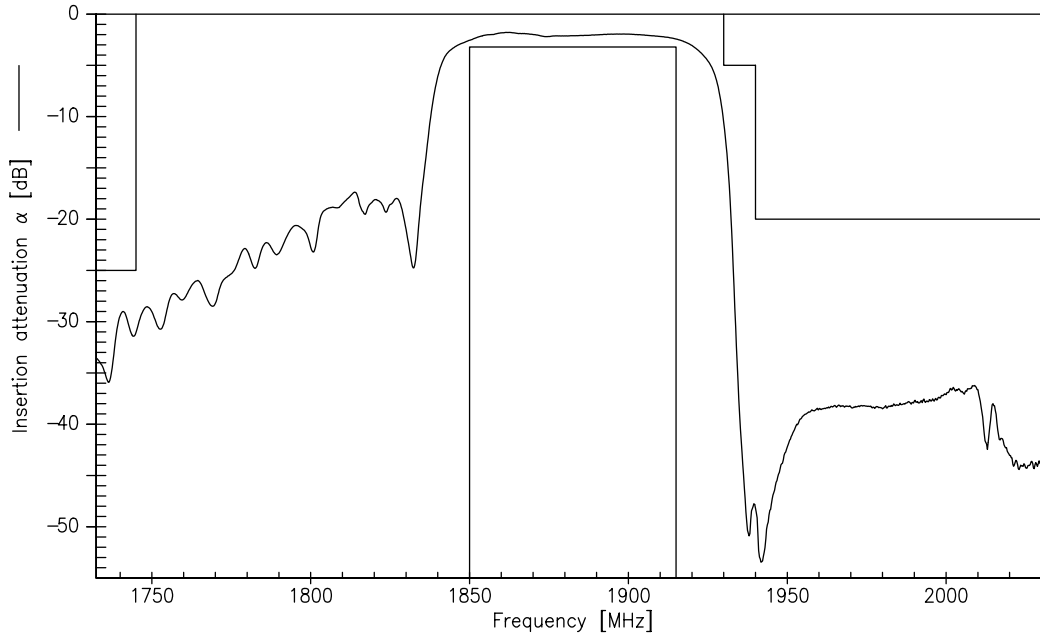
<sup>1)</sup> acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



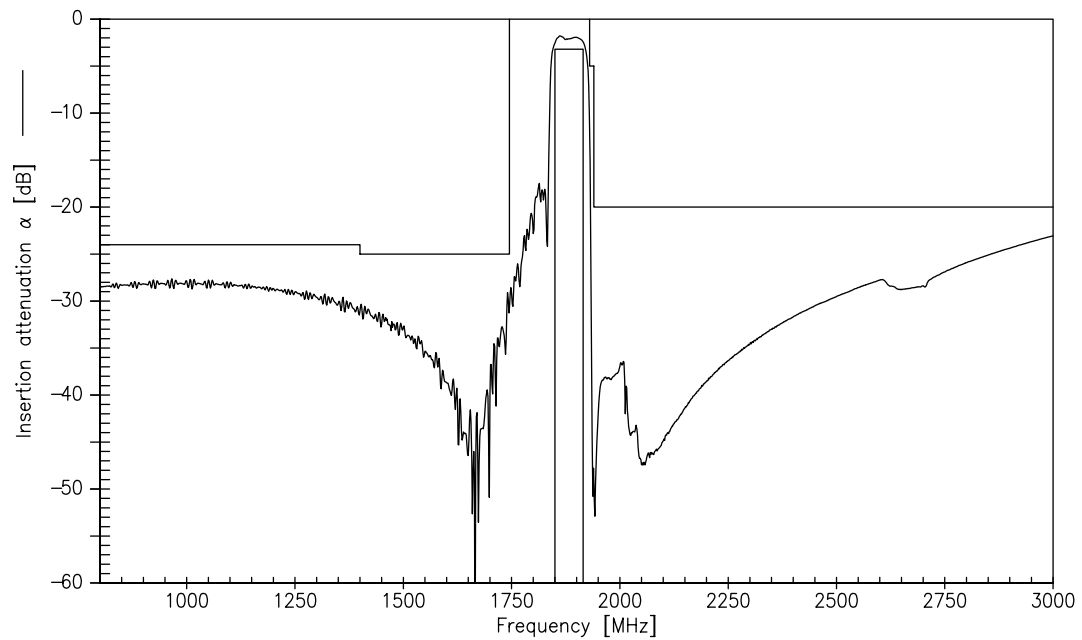
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Transfer function



Transfer function (wideband)



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





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Data sheet	

## References

<b>Type</b>	B4182
<b>Ordering code</b>	B39182B4182U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B4182_NB.s2p B4182_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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