



SAW Components

SAW RF filter for base stations

CDMA BTS

Series/type: B4182
Ordering code: B39182B4182U410

Date: April 22, 2013
Version: 2.1

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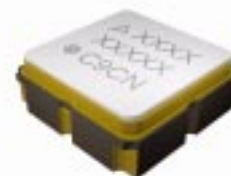
1882.5 MHz

Data sheet



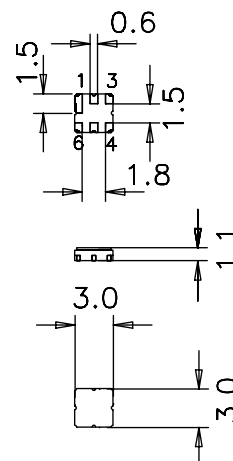
Application

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



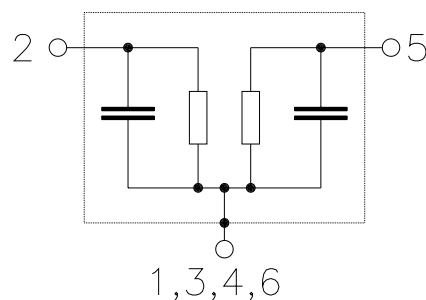
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- 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
- 5 Output
- 1,3,4,6 To be grounded



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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.	
Center frequency	f_c				1882.5		MHz
Maximum insertion attenuation	α_{\max}	1850.0 ... 1915.0 MHz		—	2.5	3.2	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1850.0 ... 1915.0 MHz		—	0.8	1.4	dB
Return loss		1850.0 ... 1915.0 MHz		9	10	—	dB
Attenuation	α_{abs}						
		800.0 ... 1400.0 MHz		24	28	—	dB
		1400.0 ... 1745.0 MHz		25	28	—	dB
		1930.0 ... 1940.0 MHz		5	10	—	dB
		1940.0 ... 3000.0 MHz		20	23	—	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.	
Center frequency	f_c				1882.5		MHz
Maximum insertion attenuation	α_{\max}	1850.0 ... 1915.0 MHz		—	2.9	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1850.0 ... 1915.0 MHz		—	1.1	1.7	dB
Return loss		1850.0 ... 1915.0 MHz		9	10	—	dB
Attenuation	α_{abs}	800.0 ... 1400.0 MHz		24	28	—	
		1400.0 ... 1746.0 MHz		25	28	—	dB
		1930.0 ... 1940.0 MHz		5	7	—	dB
		1940.0 ... 3000.0 MHz		20	23	—	dB

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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.	
Center frequency	f_c			1882.5		MHz
Maximum insertion attenuation	α_{\max}	1850.0 ... 1915.0 MHz	—	2.9	4.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1850.0 ... 1915.0 MHz	—	1.1	2.2	dB
Return loss		1850.0 ... 1915.0 MHz	9	10	—	dB
Attenuation	α_{abs}					
		800.0 ... 1400.0 MHz	24	28	—	
		1400.0 ... 1746.0 MHz	25	28	—	dB
		1930.0 ... 1940.0 MHz	3	7	—	dB
		1940.0 ... 3000.0 MHz	20	23	—	dB

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Maximum ratings

Operable temperature range	T	−40/+85	°C	
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	6	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power max				
1930.0 ... 1990.0 MHz	P _{IN}	12	dBm	CW, 2000 hrs @ 85 °C
	P _{IN}	15	dBm	CW, 2000 hrs @ 55 °C

¹⁾ acc. to JESD22-A115B (machine model), 10 negative & 10 positive pulses.

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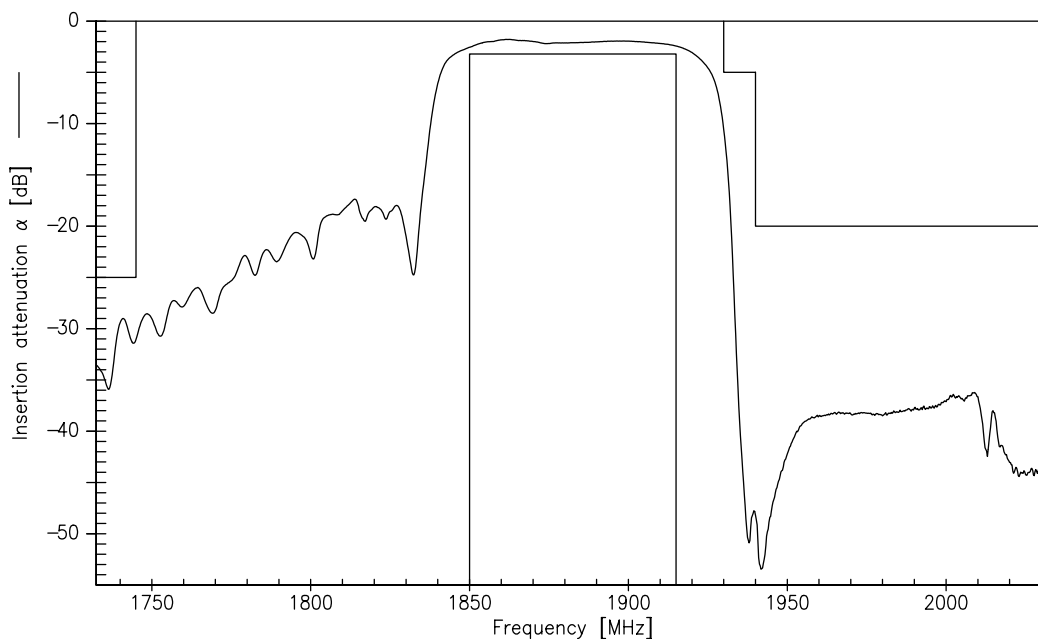
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1882.5 MHz

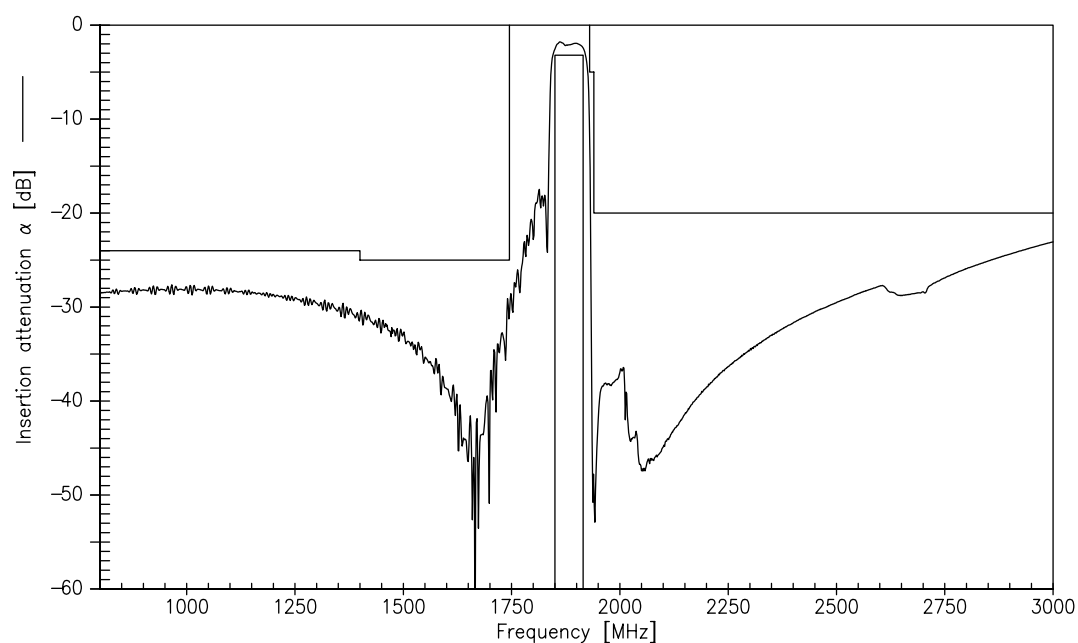
Data sheet



Transfer function



Transfer function (wideband)



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

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References

Type	B4182
Ordering code	B39182B4182U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B4182_NB.s2p , B4182_WB.s2p See file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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