SAW Components

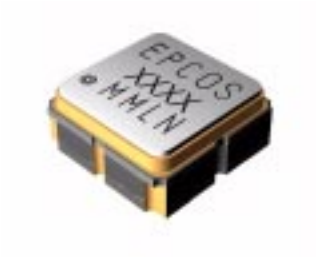
SAW filter

CDMA BTS

Series/type:	**B4182**
Ordering code:	**B39182B4182U410**
Date:	November 16, 2009
Version:	2.0

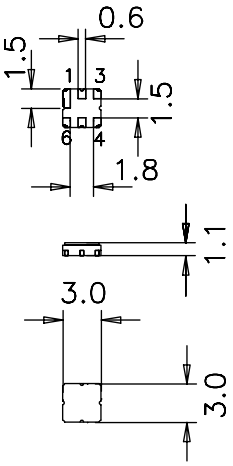
Application

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



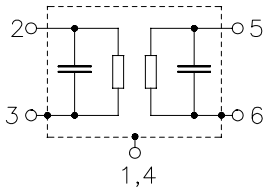
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Data sheet SMD

Characteristics

Temperature range for specification: $T = 25 \pm 2\,^{\circ}C$
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		9,0	10,0	—	dB
Attenuation		α_{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

Characteristics

Temperature range for specification: T = 0 to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			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		9,0	10,0	—	dB
Attenuation		α_{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

Characteristics

Temperature range for specification: T = -40 to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

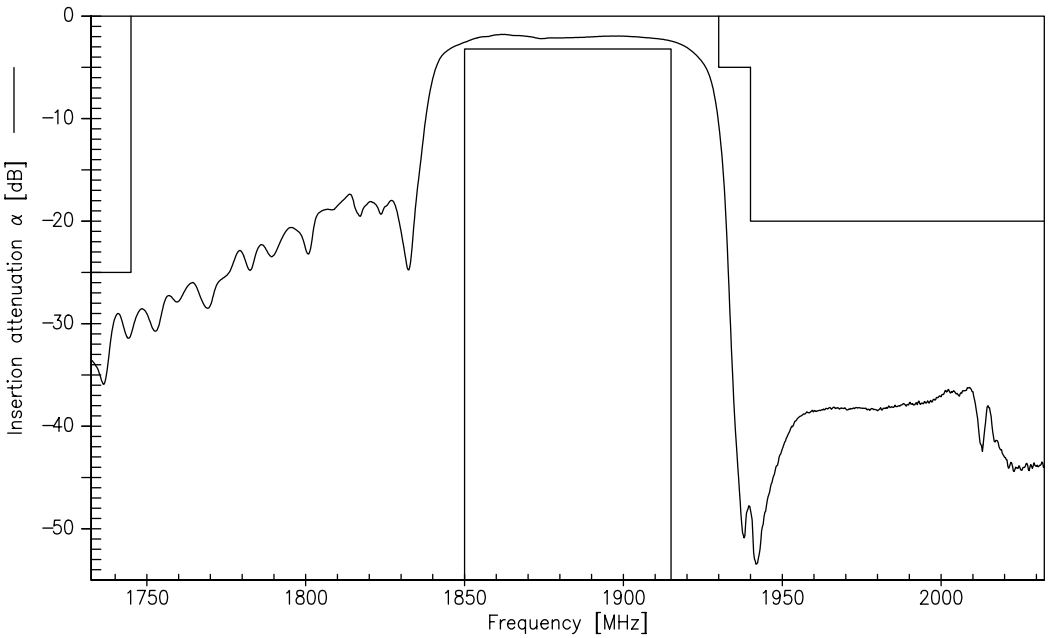
				min.	typ. @ 25 ˚C	max.	
Center frequency			f_c		1882,5		MHz
Maximum insertion attenuation			α_{max}				
1850,0	...1915,0	MHz		—	2,9	4.0	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
1850,0	...1915,0	MHz		—	1,1	2.2	dB
Return loss							
1850,0	...1915,0	MHz		9,0	10,0	—	dB
Attenuation			α_{abs}				
800,0	...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

Maximum ratings

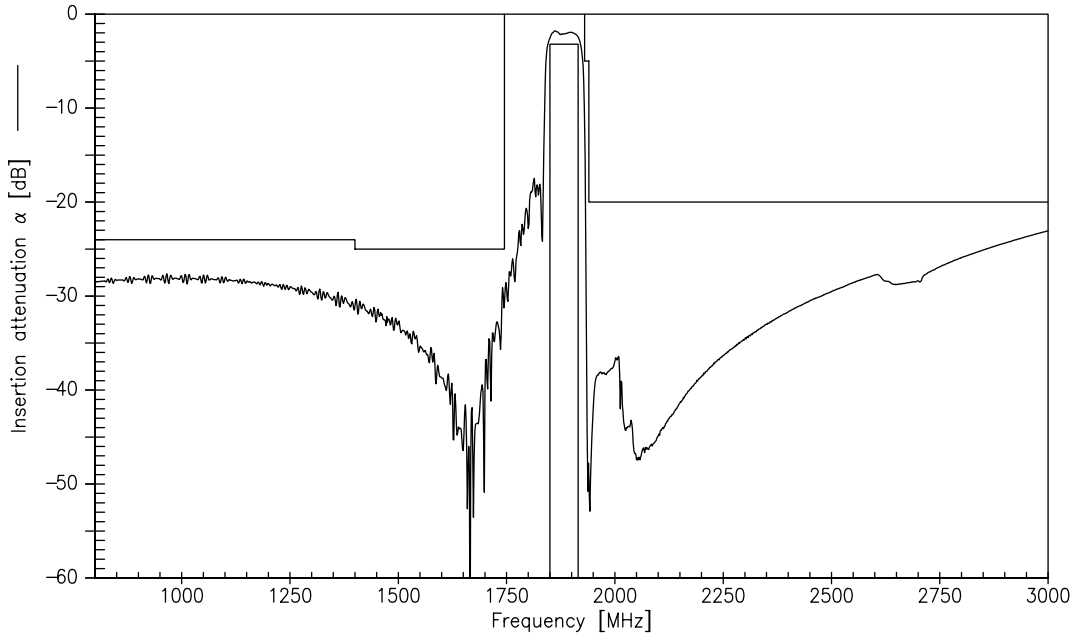
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model, 1 pulse
Input power max				
1930.0 ... 1990.0 MHz	P_{IN}	12	dBm	continuous wave, 85 ˚C
	P_{IN}	15	dBm	continuous wave, 55 ˚C

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

Transfer function



Transfer function (wideband)



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	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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