SAW Components

SAW filter

TD-SCDMA 2100

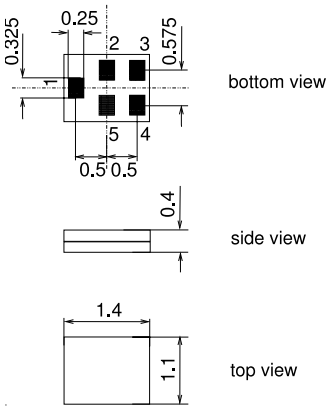
Series/Type:	**B9467**
Ordering code:	**B39202B9467P810**
Date:	Sep 21, 2010
Version:	2.1

Application

- Low-loss RF filter for mobile telephone TD-SCDMA systems
- Impedance transformation from 50 Ω to 200 Ω
- Unbalanced to balanced operation
- Low amplitude ripple
- Usable passband 15 MHz

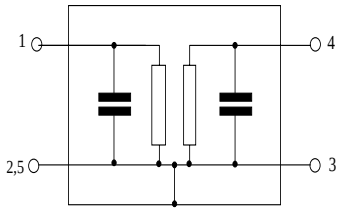
Features

- Package size 1.4 x 1.1 x 0.4 mm³
- RoHS compatible
- Approx. weight 0.003g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitive **L**evel 3



Pin configuration

- 1 Input, unbalanced
- 3,4 Output, balanced
- 2,5 Case-ground



Data sheet SMD

Characteristics

Temperature range for specification: T = –30 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω

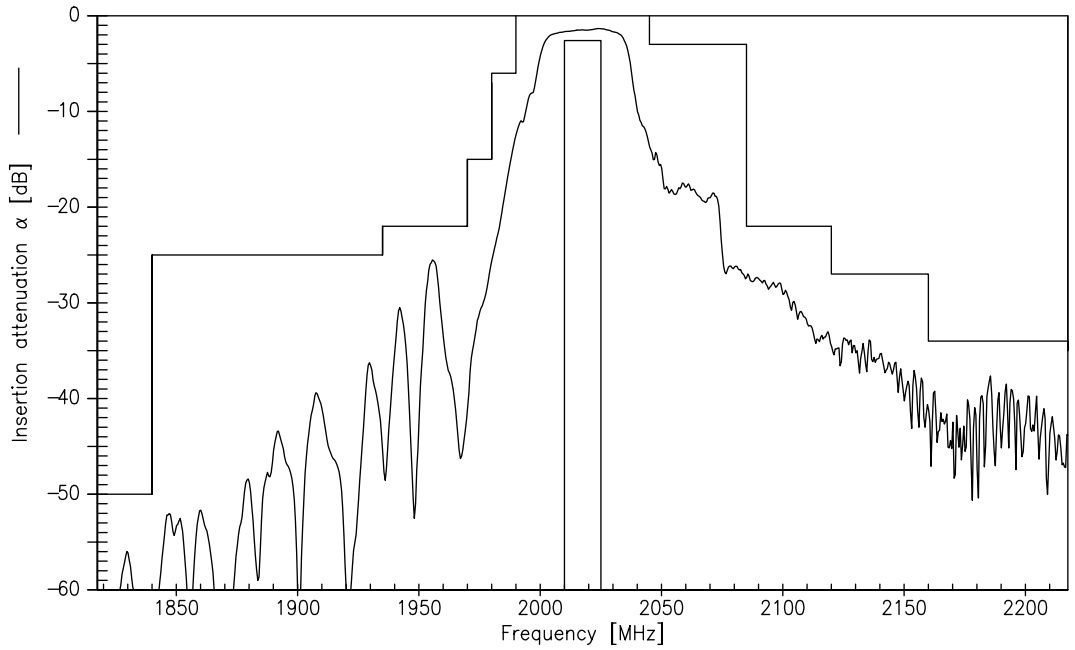
		min.	typ. @ 25˚C	max.	
Center frequency	f_C	—	2017.5	—	MHz
Maximum insertion attenuation	α_{max}				
2010.0 ... 2025.0 MHz		—	1.6	2.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2010.0 ... 2025.0 MHz		—	0.2	1.2	dB
Input VSWR					
2010.0 ... 2025.0 MHz		—	1.5	2.0	
Output VSWR					
2010.0 ... 2025.0 MHz		—	1.4	2.0	
Group delay ripple (p-p)					
2010.0 ... 2025.0 MHz		—	4	20	ns
Common mode rejection ratio					
2010.0 ... 2025.0 MHz		20	29	—	dB
Attenuation	α				
0 ... 1840.0 MHz		50	56	—	dB
1840.0 ... 1935.0 MHz		25	36	—	dB
1935.0 ... 1970.0 MHz		22	25	—	dB
1970.0 ... 1980.0 MHz		15	25	—	dB
1980.0 ... 1990.0 MHz		6	12	—	dB
2045.0 ... 2085.0 MHz		3	14	—	dB
2085.0 ... 2120.0 MHz		22	26	—	dB
2120.0 ... 2160.0 MHz		27	33	—	dB
2160.0 ... 2300.0 MHz		34	38	—	dB
2300.0 ... 2700.0 MHz		35	40	—	dB
2700.0 ... 2900.0 MHz		35	37	—	dB
2900.0 ... 6000.0 MHz		35	49	—	dB

Maximum ratings

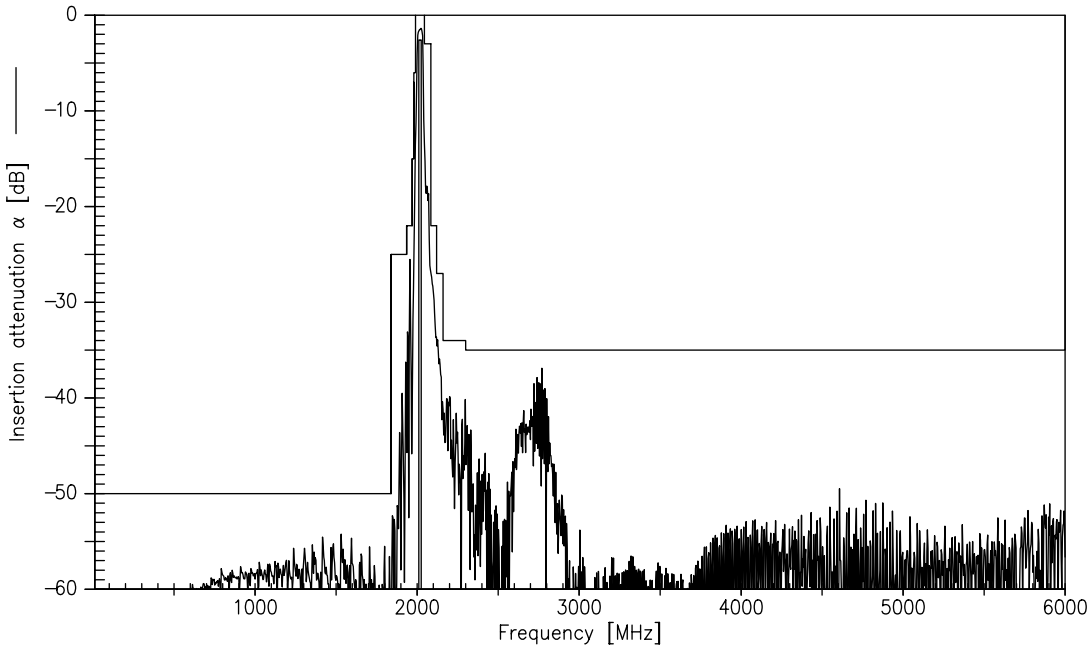
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50 [1)]	V	machine model, 1 pulses
Input Power at 2010.0...2025.0 MHz	P_{IN}	12	dBm	effective power in the on-state, duty cycle 4:8

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

Transfer function (narrowband)

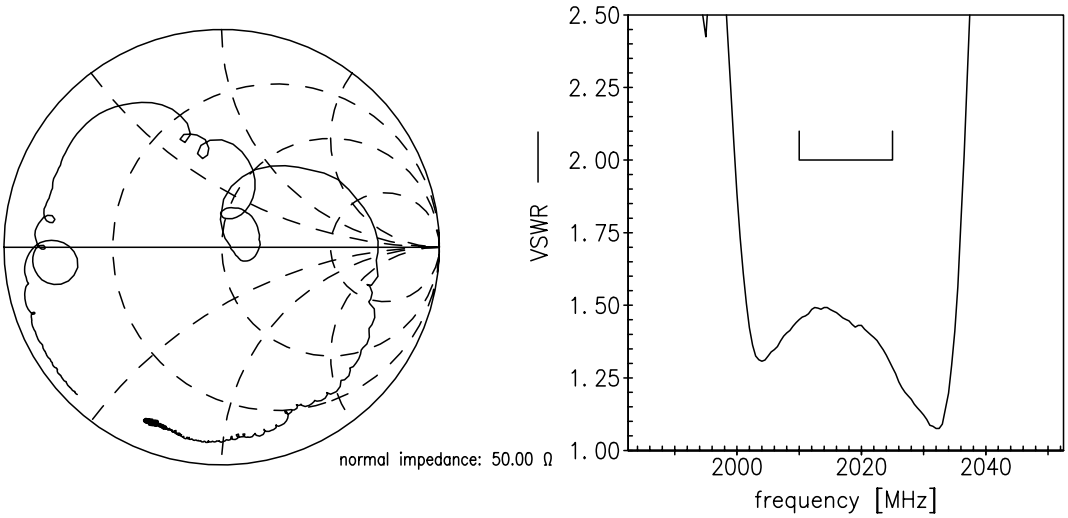


Transfer function (wideband)

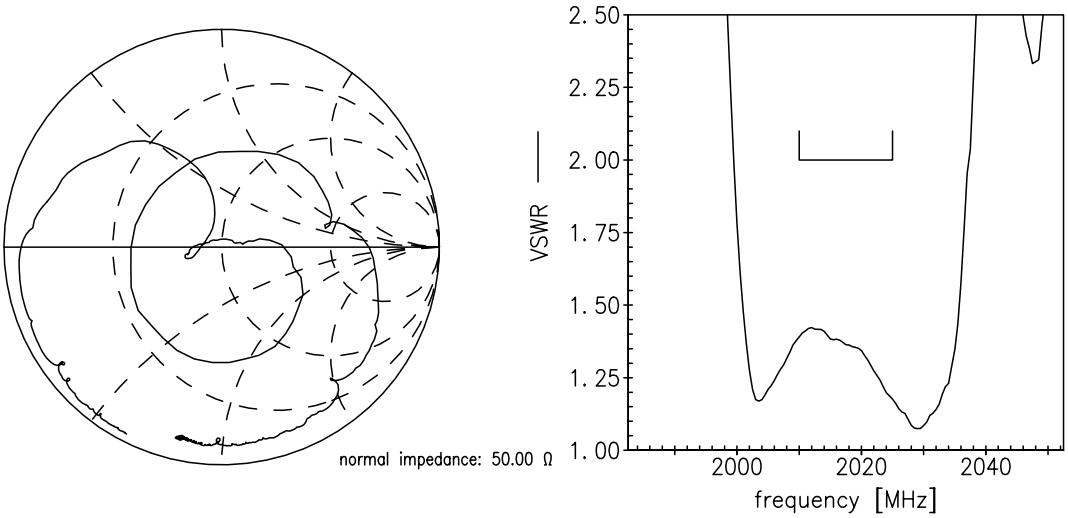


Smith chart

S_{11} function



S_{22} function



References

Type	B9467
Ordering code	B39202B9467P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9467_NB.s2p B9467_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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coils	See http://www.tdk.co.jp/tefe02/coil.htm#aname1 http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

Published by EPCOS AG
Surface Acoustic Wave Components Division
P.O. Box 80 17 09, 81617 Munich, GERMANY

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