



SAW Components

SAW Diversity Rx filter

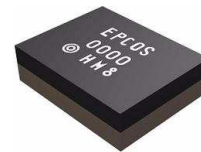
WCDMA Band I/IV

Series/type:	B9469
Ordering code:	B39212B9469K610
Date:	November 24, 2010
Version:	2.0



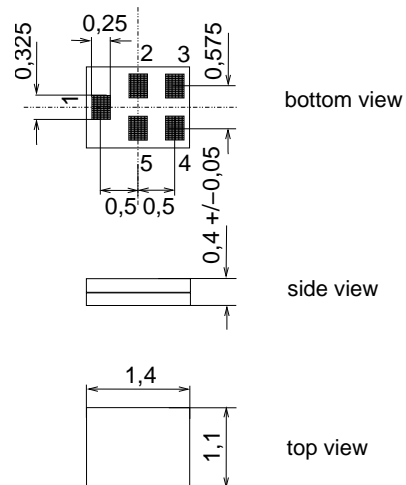
Application

- Low-loss RF filter for mobile telephone WCDMA Band I/IV systems (diversity) receive path (RX)
- Usable for diversity application
- Usable passband 60 MHz
- Unbalanced to balanced operation (50Ω /100Ω)



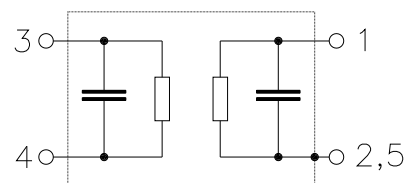
Features

- Package size 1.4 x 1.1 x 0.4 mm³
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 3**



Pin configuration

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





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SAW RF Filter	2140.0 MHz

Data Sheet



Characteristics

Temperature range for specification: T = -30 °C to +85 °C
 Terminating source impedance: Z_S = 50 Ω (unbalanced)
 Terminating load impedance: Z_L = 100 Ω || 22 nH (balanced)

				min.	typ. @ 25 °C	max.	
Center frequency	f _C			—	2140.0	—	MHz
Maximum insertion attenuation							
2110.0 ... 2170.0 MHz	α _{max}			—	2.2	2.5	dB
Amplitude ripple (p-p)	Δα						
2110.0 ... 2170.0 MHz				—	0.7	1.0	dB
CMRR (S₂₁-S₃₁ / S₂₁+S₃₁)							
2110.0 ... 2170.0 MHz	CMRR ¹⁾			23	29		dB
Input VSWR							
2110.0 ... 2170.0 MHz				—	1.7	2.0	
Output VSWR							
2110.0 ... 2170.0 MHz				—	1.8	2.0	
Attenuation	α						
0.0 ... 1920.0 MHz				40	49		dB
810.0 ... 849.0 MHz				50	61		dB
898.0 ... 925.0 MHz				50	61		dB
1710.0 ... 1755.0 MHz				46	52		dB
1920.0 ... 1980.0 MHz				46	56		dB
1980.0 ... 2050.0 MHz				25	39		dB
2400.0 ... 2484.0 MHz				30	44		dB
2484.0 ... 3000.0 MHz				35	45		dB
3000.0 ... 6000.0 MHz				40	45		dB

¹⁾ A combination of 5° phase balance and 1 dB amplitude balance corresponds to 23 dB CMRR



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Maximum ratings

Operable temperature range	T	-30/+85	°C	machine model, 10 pulses
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	
Input power at				
824.0 ... 849.0 MHz				
880.0 ... 915.0 MHz				
1710.0 ... 1755.0 MHz				
1920.0 ... 1980.0 MHz		15	dBm	
else where	P _{IN}	10	dBm	

¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



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B9469

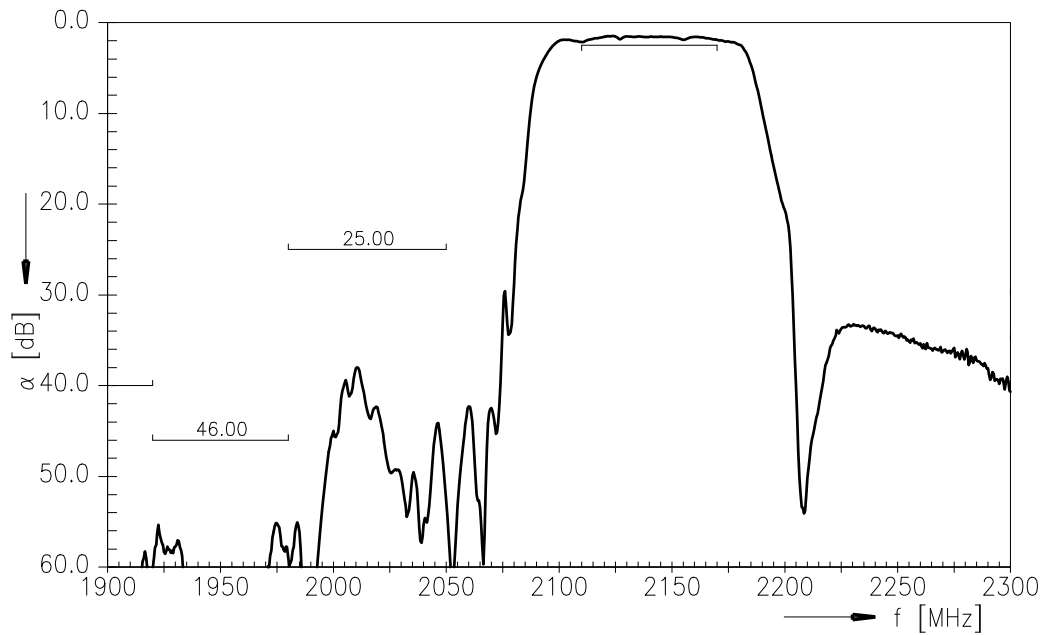
SAW RF Filter

2140.0 MHz

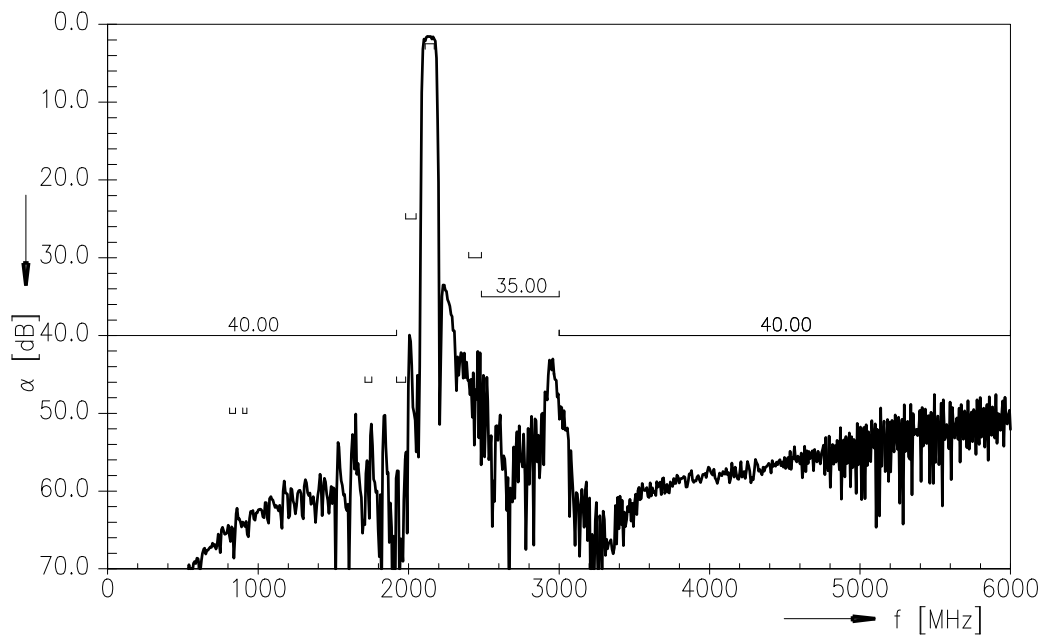
Data Sheet

SMD

Transfer function



Transfer function (wideband)



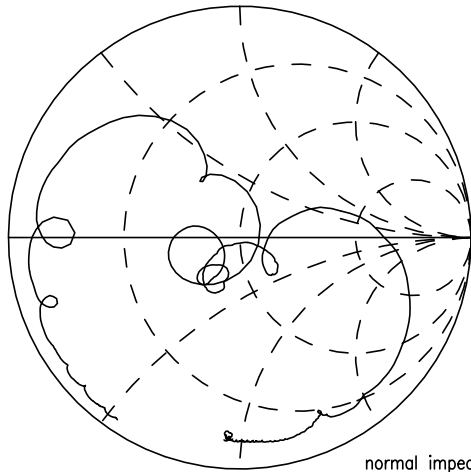
Please read *cautions and warnings* and *important notes* at the end of this document.

Data Sheet

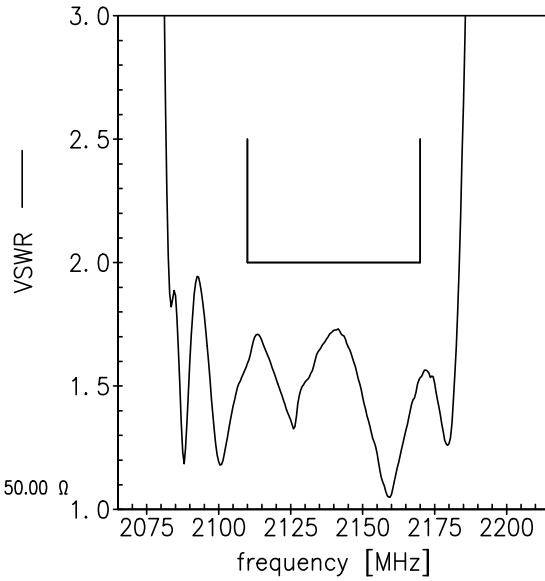


Smith chart

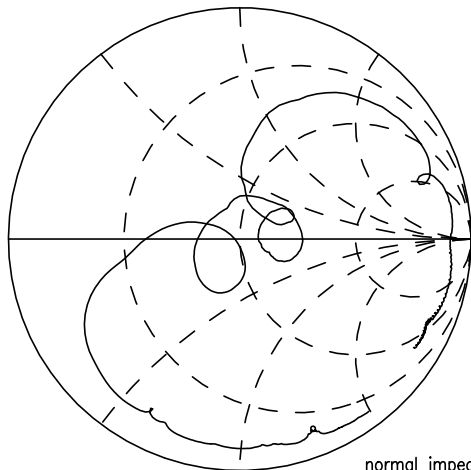
S₁₁ function



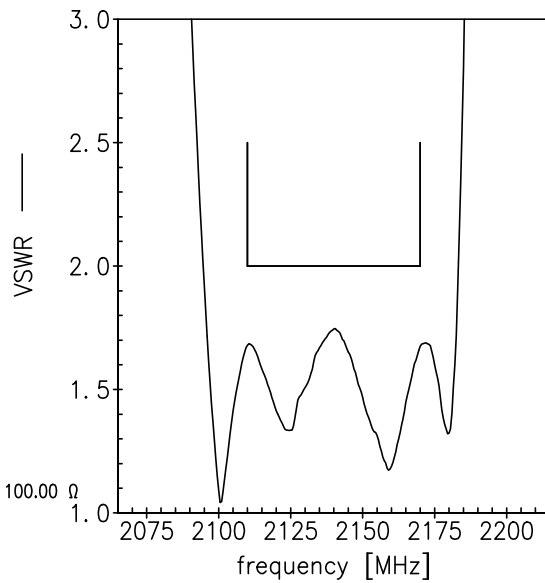
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 100.00 Ω





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References

Type	B9469
Ordering code	B39212B9469K610
Marking and package	C61157-A8-A1
Packaging	F61074-V8212-Z000
Date codes	L_1126
S-parameters	B9469_UN_NB.s3p, B9469_UN_WB.s3p See file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: CTIVE 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.

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



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