



SAW Components

SAW Rx filter

TD-SCDMA Band 38

Series/Type:	B9491
Ordering code:	B39262B9491P810
Date:	December 05, 2011
Version:	2.0

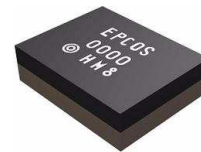
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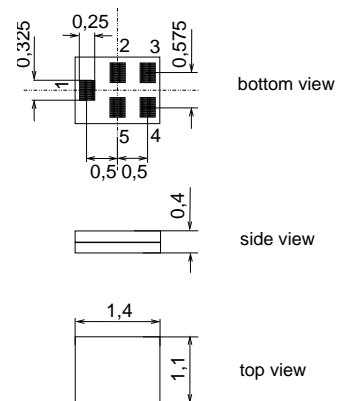
Data sheet

Application

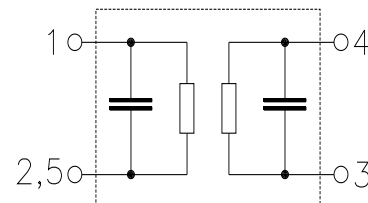
- Low-loss RF filter for mobile telephone TD-SCDMA systems
- Unbalanced to balanced operation
- Low amplitude ripple
- Usable passband 50 MHz
- Impedance transformation from 50 Ω to 150 Ω


Features

- Package size 1.4 x 1.1 x 0.4 mm³
- RoHS compatible
- Approx. weight 0.003g
- 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 Case-ground



Data sheet

Characteristics

Temperature range for specification:	$T = -30\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 150\ \Omega \parallel 56\text{ nH (balanced)}$

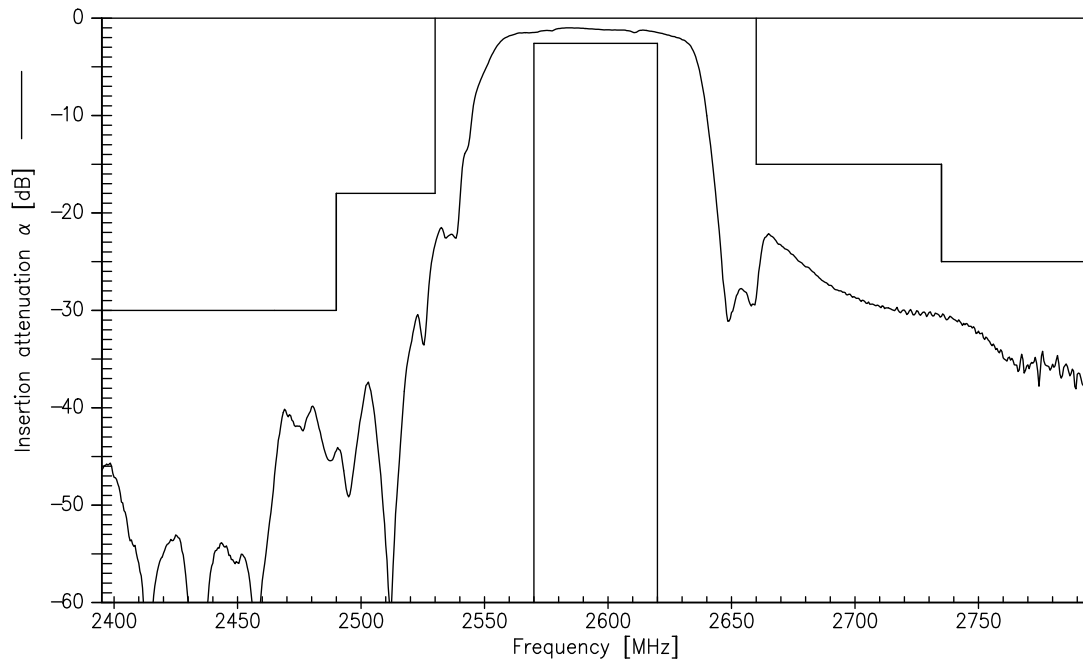
		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	2595.0	—	MHz
Maximum insertion attenuation	α_{\max}	—	1.5	2.6	dB
2570.0 ... 2620.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.5	1.6	dB
2570.0 ... 2620.0 MHz					
Input VSWR		—	1.6	2.0	
2570.0 ... 2620.0 MHz					
Output VSWR		—	1.5	2.0	
2570.0 ... 2620.0 MHz					
CMRR ($S_{21}-S_{31} / S_{21}+S_{31}$)		19	23	—	dB
2570.0 ... 2620.0 MHz					
Attenuation	α				
0.1 ... 2330.0 MHz		35	54	—	dB
2330.0 ... 2465.0 MHz		30	47	—	dB
2465.0 ... 2490.0 MHz		30	40	—	dB
2490.0 ... 2530.0 MHz		18	23	—	dB
2660.0 ... 2735.0 MHz		15	22	—	dB
2735.0 ... 6000.0 MHz		25	30	—	dB

Maximum ratings

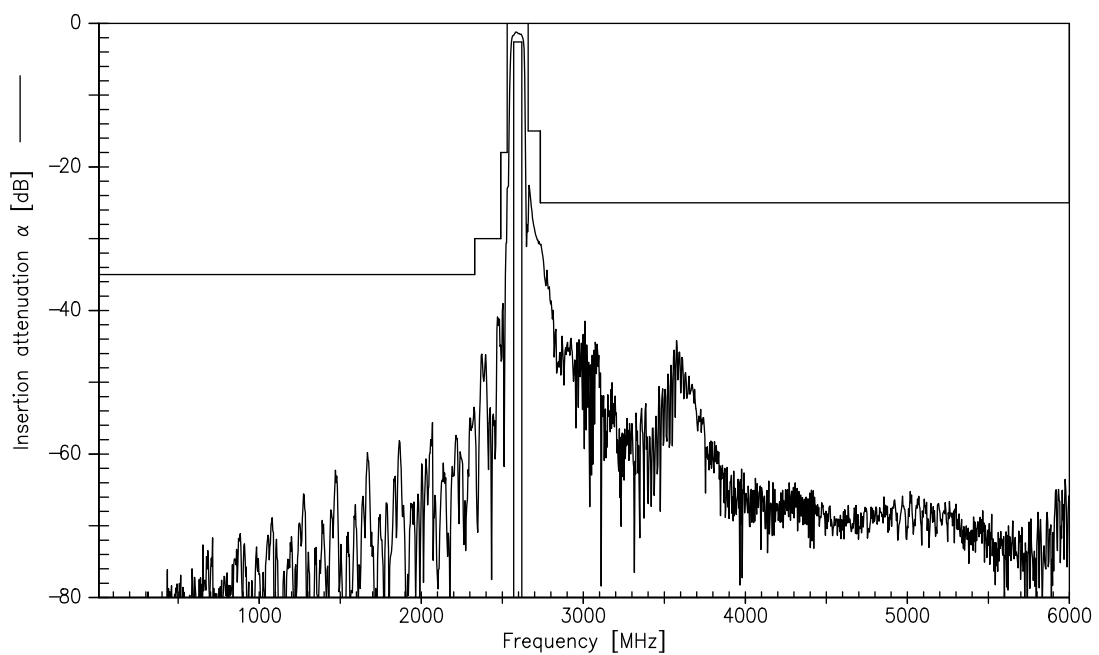
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input Power at 2570.0 ... 2620.0 MHz	P _{IN}	8	dBm	effective power in the on-state duty cycle 4:8

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

Transfer function (narrowband)



Transfer function (wideband)

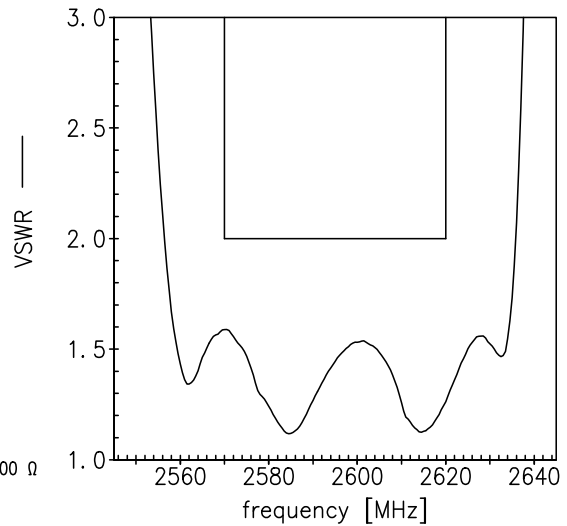
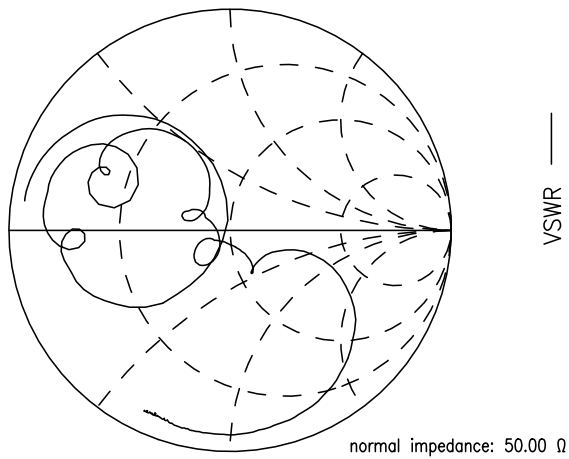


Data sheet

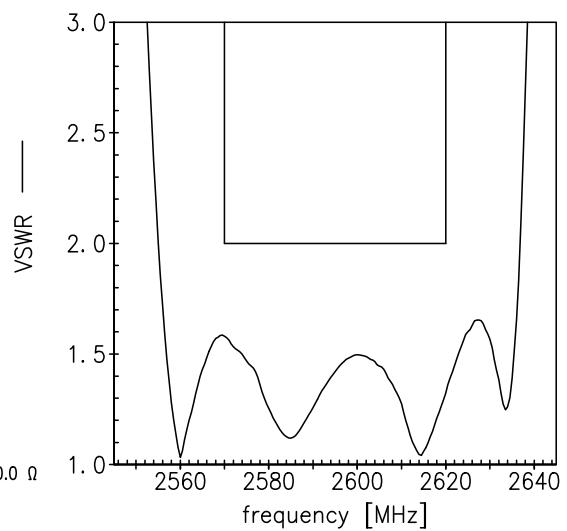
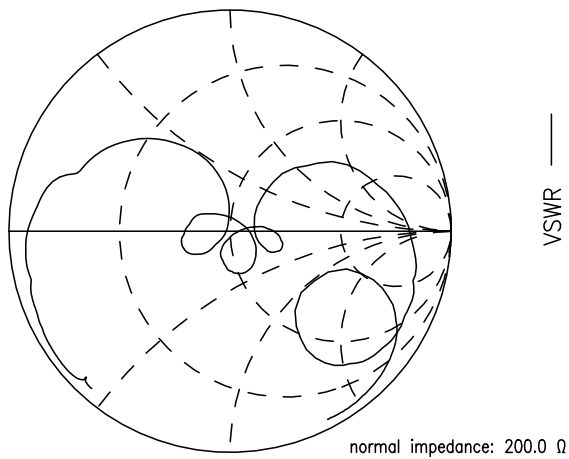
SMD

Smith charts

S₁₁ function



S₂₂ function



SAW Components	B9491
SAW Rx Filter	2595.0 MHz

Data sheet



Type	B9491
Ordering code	B39262B9491P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9491_NB.s3p, B9491_WB.s3p 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."
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

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Published by EPCOS AG
Systems, Acoustics, Waves Business Group
P.O. Box 80 17 09, 81617 Munich, GERMANY

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