



SAW Components

SAW filter

Low-Loss Filter for TD-SCDMA

Series/Type:	B9484
Ordering code:	B39202B9484P810
Date:	Aug, 28, 2012
Version:	2.0

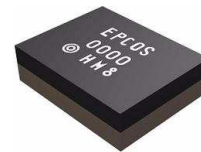
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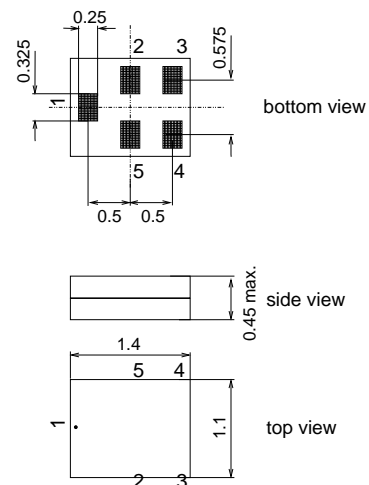
Data sheet

Application

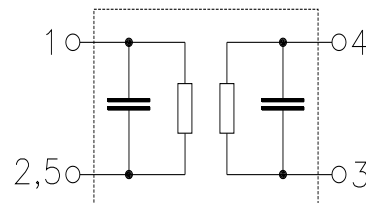
- Low-loss RF filter for mobile telephone TD-SCDMA systems
- Impedance transformation from 50 Ω to 100 Ω
- Unbalanced to balanced operation
- Low amplitude ripple
- Usable passband 15 MHz
- Suitable for GPRS class 1 to 12


Features

- Package size 1.4 x 1.1 mm²
- Max. package height 0.45 mm
- RoHS compatible
- Approx. weight 0.003g
- Package for Surface Mount Technology (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

Characteristics

Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 100\ \Omega$

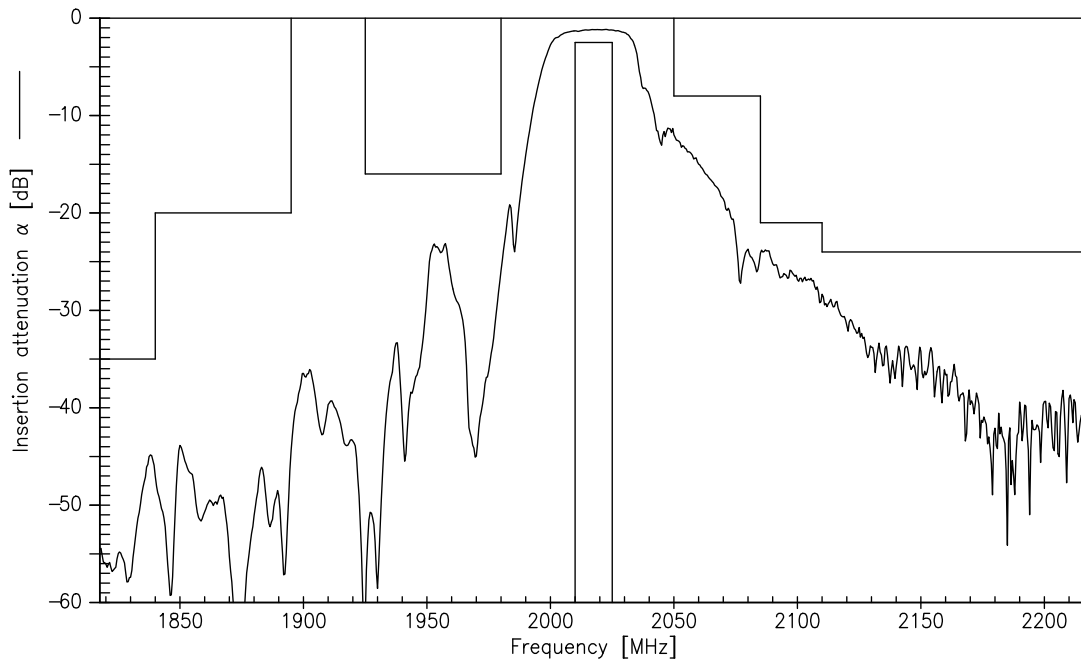
		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	2017.5	—	MHz
Maximum insertion attenuation	α_{\max}	—	1.3	2.5	dB
2010.0 ... 2025.0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.2	1.0	dB
2010.0 ... 2025.0	MHz				
Input VSWR		—	1.3	2.0	
2010.0 ... 2025.0	MHz				
Output VSWR		—	1.4	2.0	
2010.0 ... 2025.0	MHz				
CMRR ($S_{21}-S_{31} / S_{21}+S_{31}$)		22	30	—	dB
2010.0 ... 2025.0	MHz				
Attenuation	α				
0.1 ... 1815.0	MHz	35	49	—	dB
1815.0 ... 1840.0	MHz	35	45	—	
1840.0 ... 1895.0	MHz	20	36	—	dB
1925.0 ... 1980.0	MHz	16	21	—	
2050.0 ... 2085.0	MHz	8	10	—	dB
2085.0 ... 2110.0	MHz	21	24	—	
2110.0 ... 6000.0	MHz	24	28	—	dB

Maximum ratings

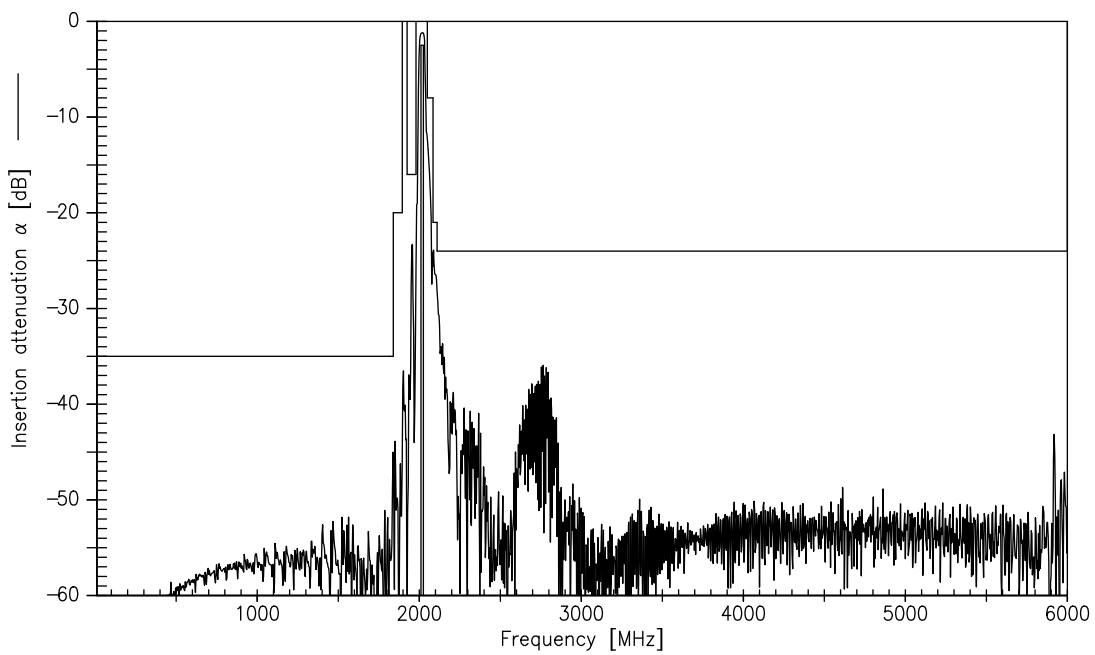
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input Power at 2010.0...2025.0MHz	P _{IN}	10	dBm	continuous wave

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

Transfer function (narrowband)



Transfer function (wideband)

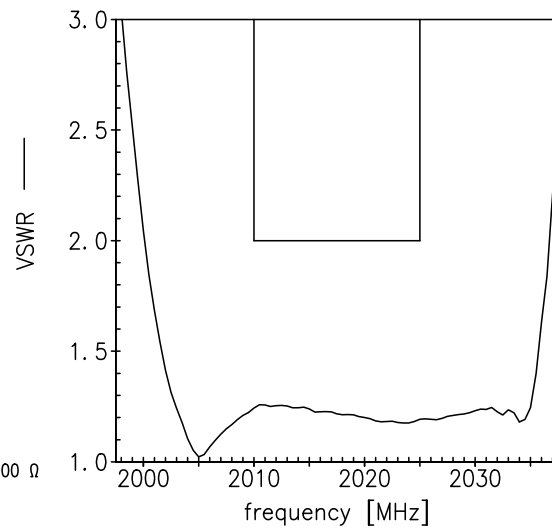
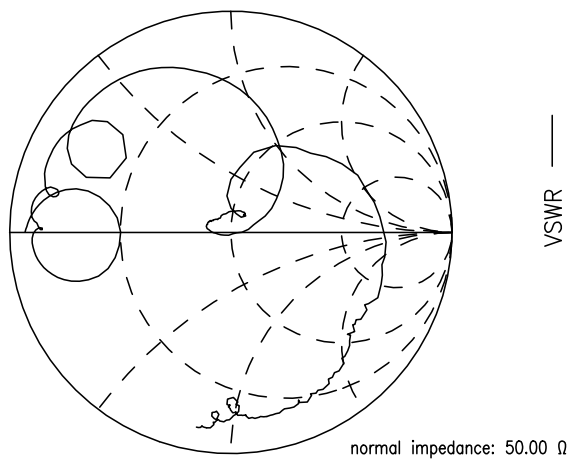


Data sheet

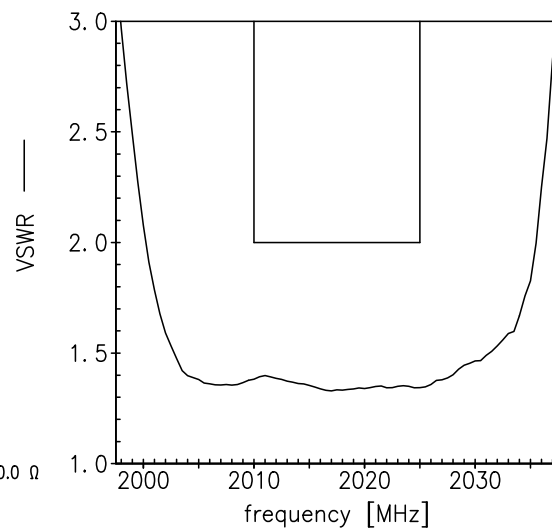
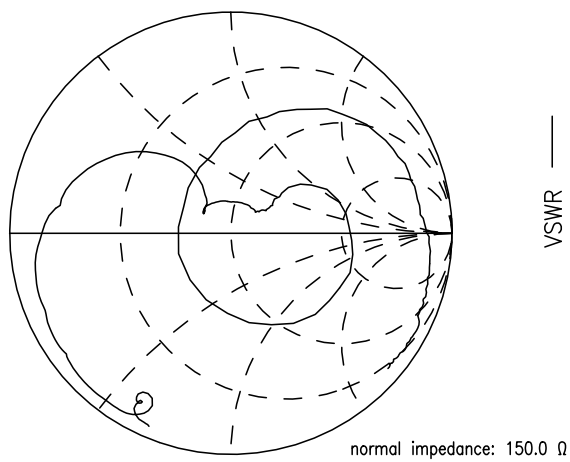
SMD

Transfer function (narrowband)

S₁₁ function



S₂₂ function



SAW Components	B9484
SAW Filter	2017.5 MHz
Data sheet	SMD

Type	B9484
Ordering code	B39202B9484P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9484_NB.s3p, B9484_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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