



SAW Components

SAW Tx Filter

WCDMA/LTE Band 7

Series/Type:	B9868
Ordering code:	B39252B9868P810
Date:	Dec, 17, 2013
Version:	2.1

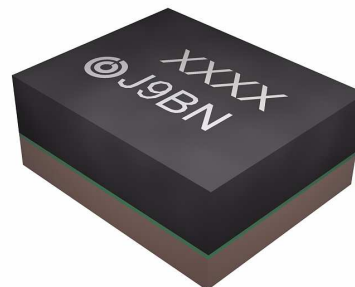
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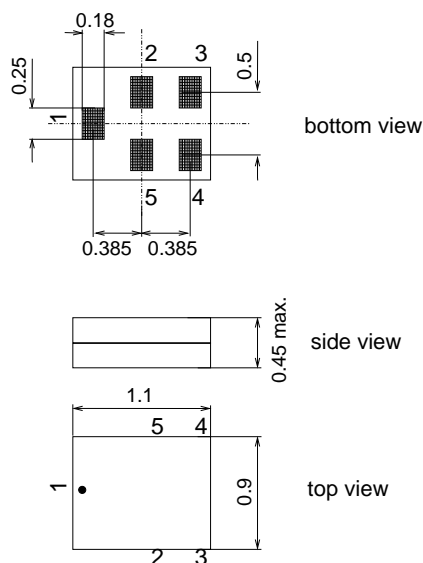
Data sheet

Application

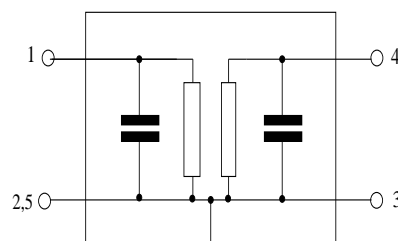
- Low-loss RF filter for mobile telephone WCDMA/LTE Band 7 systems
- Low amplitude ripple
- Usable passband: 70 MHz
- Impedance at input and output 50 Ω
- Unbalanced to unbalanced operation


Features

- Package size 1.1 x 0.9 mm²
- Max. package height 0.45 mm
- RoHS compatible
- Approx. weight 0.001 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 3**


Pin configuration

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



Data sheet

Characteristics

Operating temperature range:	$T = -20\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$

				min.	typ. @ 25°C	max.	
Center frequency	f_C			—	2535.0	—	MHz
Maximum insertion attenuation	α_{\max}						
	2500.0 ... 2570.0	MHz		—	1.5	1.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$						
	2500.0 ... 2570.0	MHz		—	0.9	1.2	dB
Input VSWR							
	2500.0 ... 2570.0	MHz		—	1.6	2.0	
Output VSWR							
	2500.0 ... 2570.0	MHz		—	1.7	2.0	
Attenuation	α						
	1570.0 ... 1610.0	MHz		25	28	—	dB
	2400.0 ... 2460.0	MHz		20	31	—	dB
	2620.0 ... 2690.0	MHz		32	37	—	dB
	5000.0 ... 5140.0	MHz		35	43	—	dB
	7500.0 ... 7710.0	MHz		—	25	—	dB

Maximum ratings

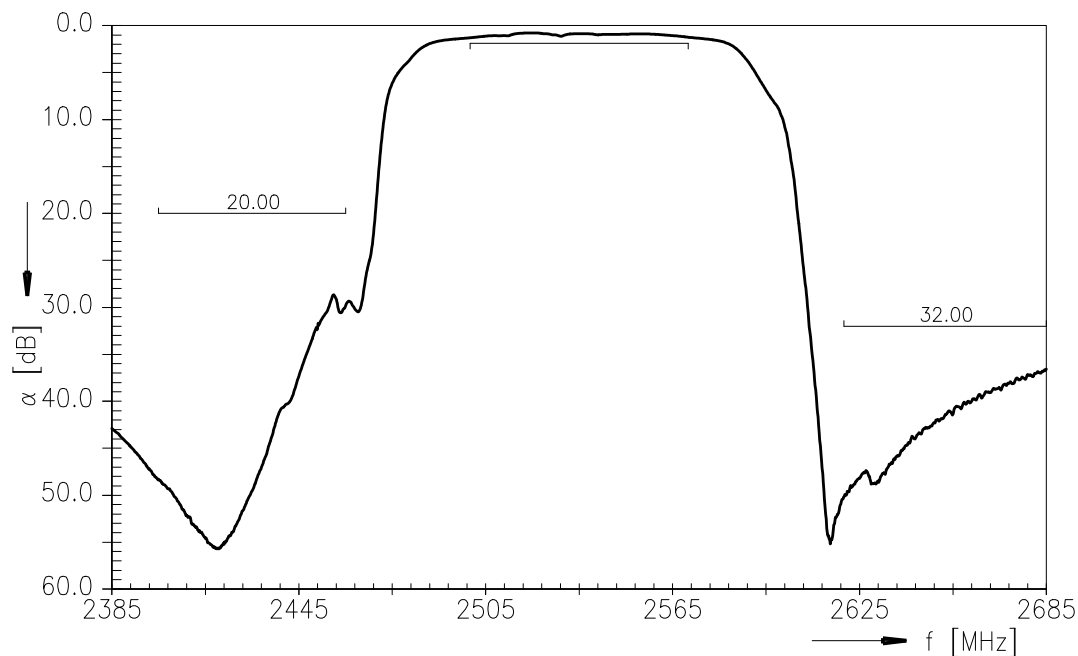
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input Power at 2500.0...2570.0 MHz	P _{IN}	10	dBm	continuous wave

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

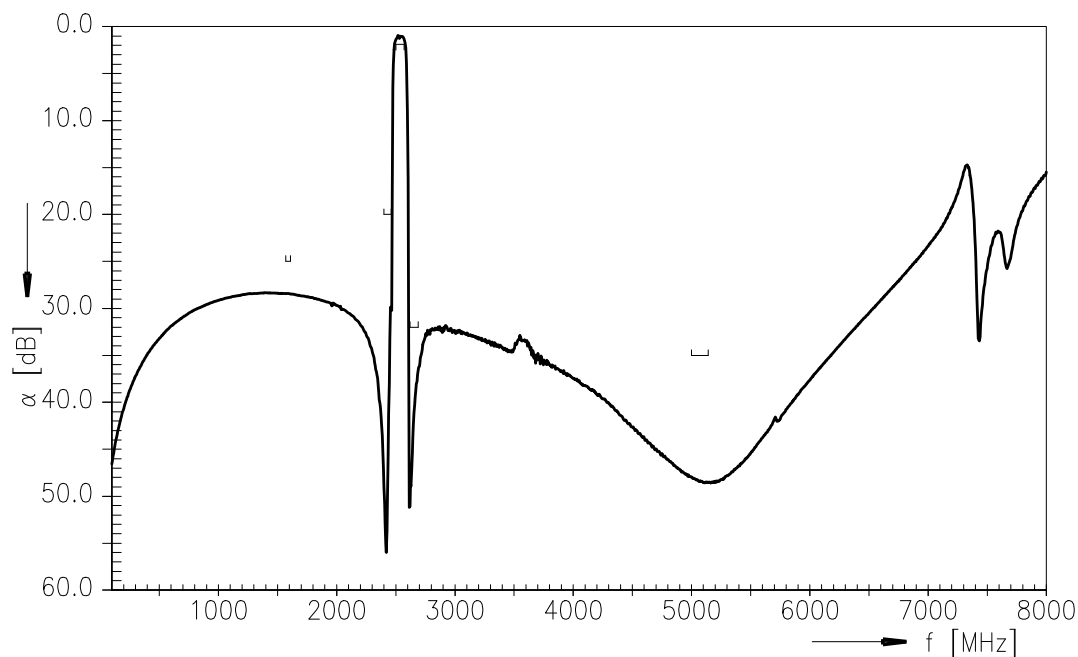
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Transfer function



Transfer function (wideband)

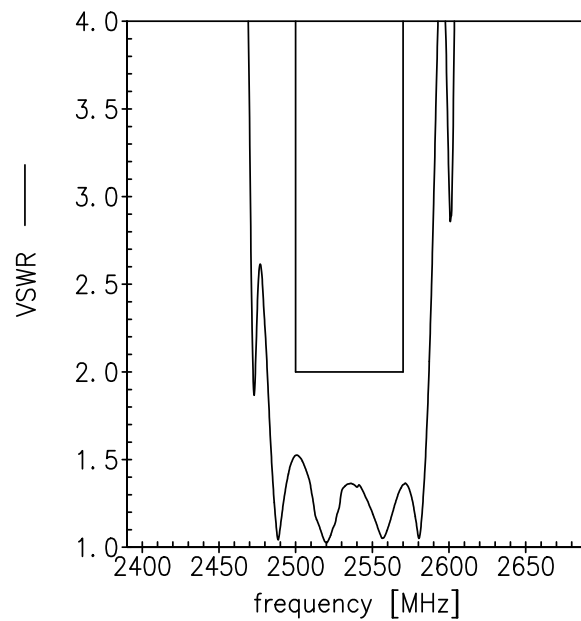
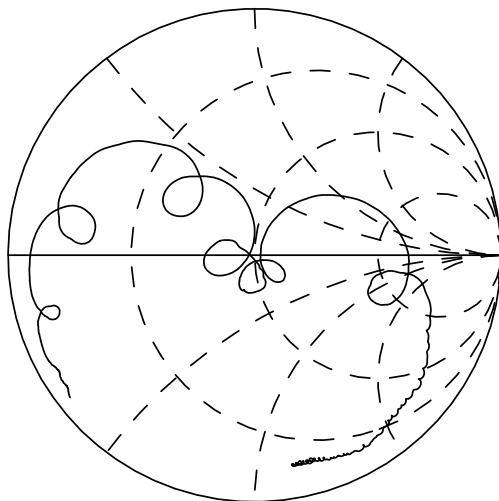


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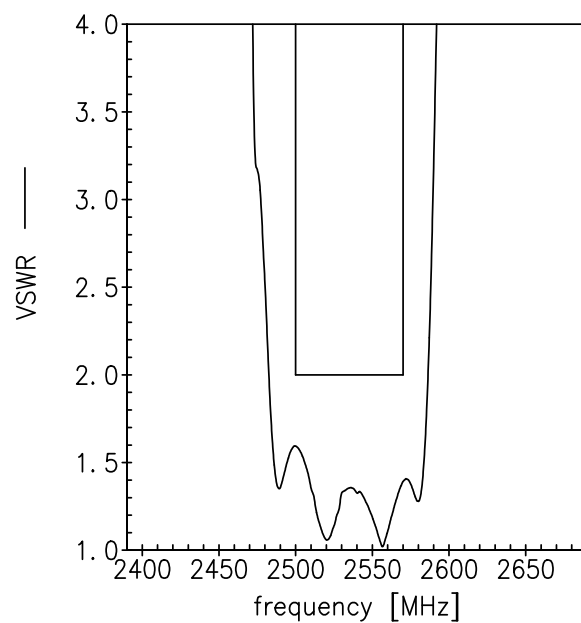
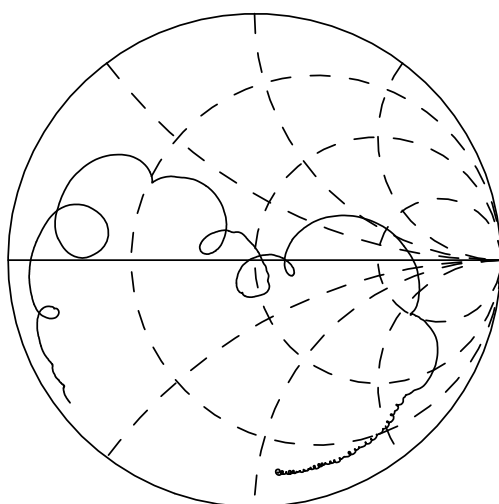


Smith charts

S₁₁ function



S₂₂ function



References

Type	B9868
Ordering code	B39252B9868P810
Marking and package	C61157-A8-A30
Packaging	F61074-V8255-Z000
Date codes	L_1126
S-parameters	B9868_NB.s2p, B9868_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 .

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