SAW Components

SAW filter for smallcells and femtocells

Band 25 Downlink (LTE)

Series/type:	**B8310**
Ordering code:	**B39202B8310P810**
Date:	November 12, 2014
Version:	2.0

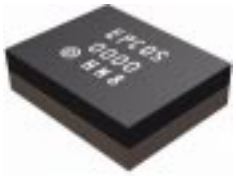
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Sample data SMD

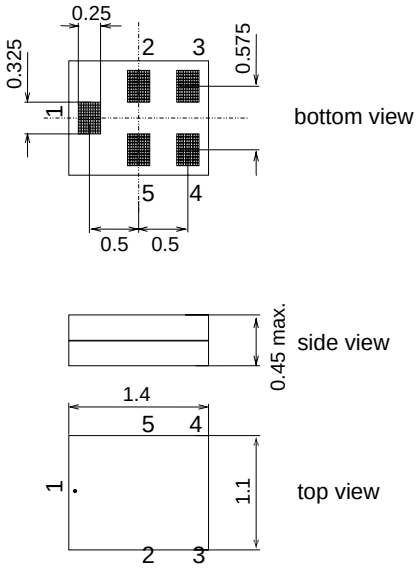
Application

- Low-loss SAW Downlink filter for LTE femtocell system (Band 25)
- Usable passband 65MHz
- Unbalanced to unbalanced operation



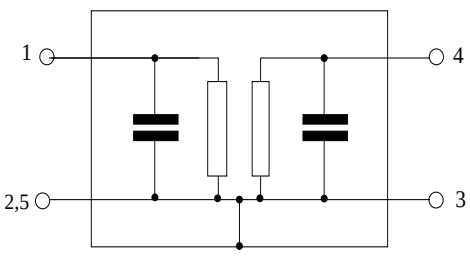
Features

- Package size 1.4 x 1.1 mm²
- Maximum package height 0.45 mm
- RoHS compatible
- Approximate weight 0.003 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- Moisture Sensitive Level 3



Pin configuration

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



SAW filter for smallcells and femtocells 1962.50 MHz

Sample data SMD

Characteristics

Temperature range for specification: T = -10 °C to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1962.5	—	MHz
Maximum insertion attenuation	α_{max}				
1930.0 ... 1995.0MHz		—	3.0	3.7	dB
Amplitude ripple(p-p)	$\Delta\alpha$				
1930.0 ... 1995.0MHz		—	1.5	2.2	dB
Error Vector Magnitude	EVM[1)]				
@$f_{Carrier}$ 1932.4 ... 1992.6MHz		—	2.0	3.5	%
Input VSWR					
1930.0 ... 1995.0MHz		—	2.0	2.5	
Output VSWR					
1930.0 ... 1995.0MHz		—	2.1	2.5	
Absolute Attenuation	α_{abs}				
50 ... 1910.0MHz		20	40	—	dB
2050.0 ... 4000.0MHz		30	39	—	dB
4000.0 ... 6000.0MHz		20	34	—	dB

1) Error Vector Magnitude (EVM) based on definition given in 3GPP TS 25.141.

Sample data SMD

Maximum ratings

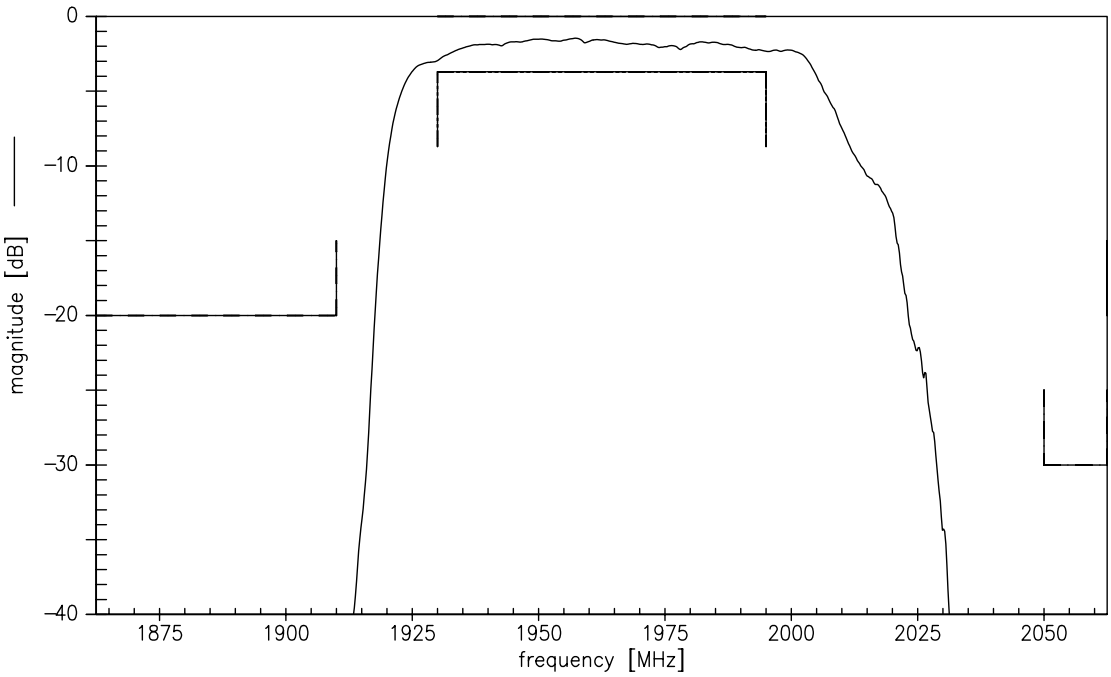
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model,10 pulses
Input power at 1930.0...1995.0MHz	P_{IN}	16	dBm	CW @ 55˚C,100000 hrs

1) acc. to JESD22-A115B (machine model), +/-10 pulses.

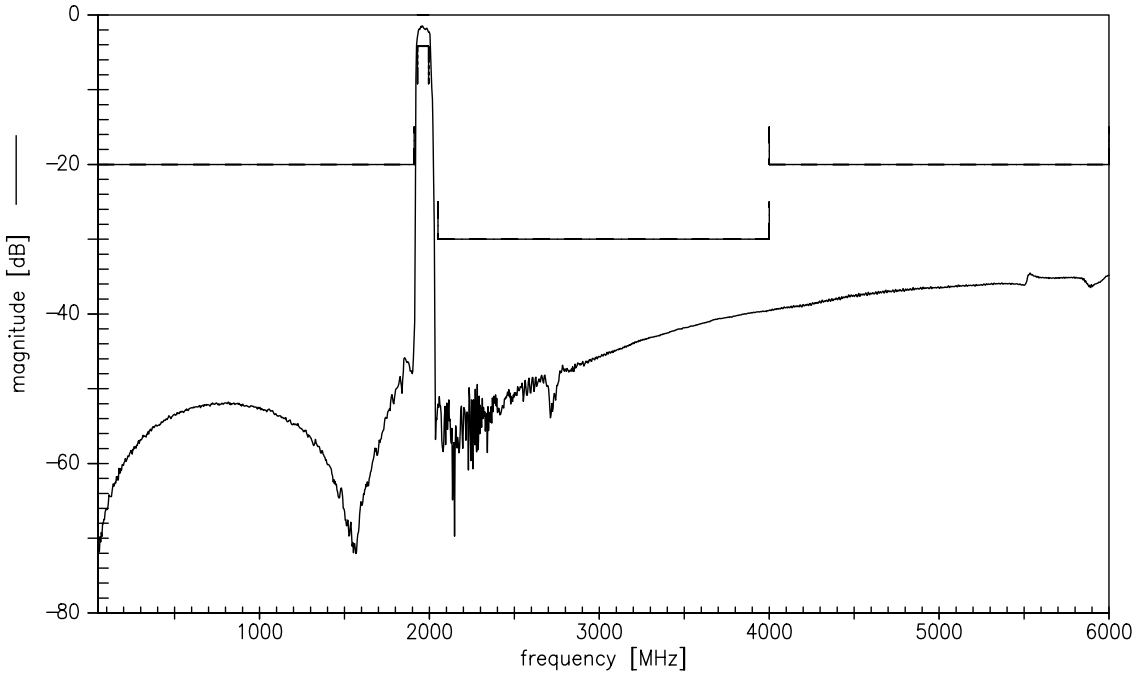
Sample data

SMD

Transfer function



Transfer function (wideband)

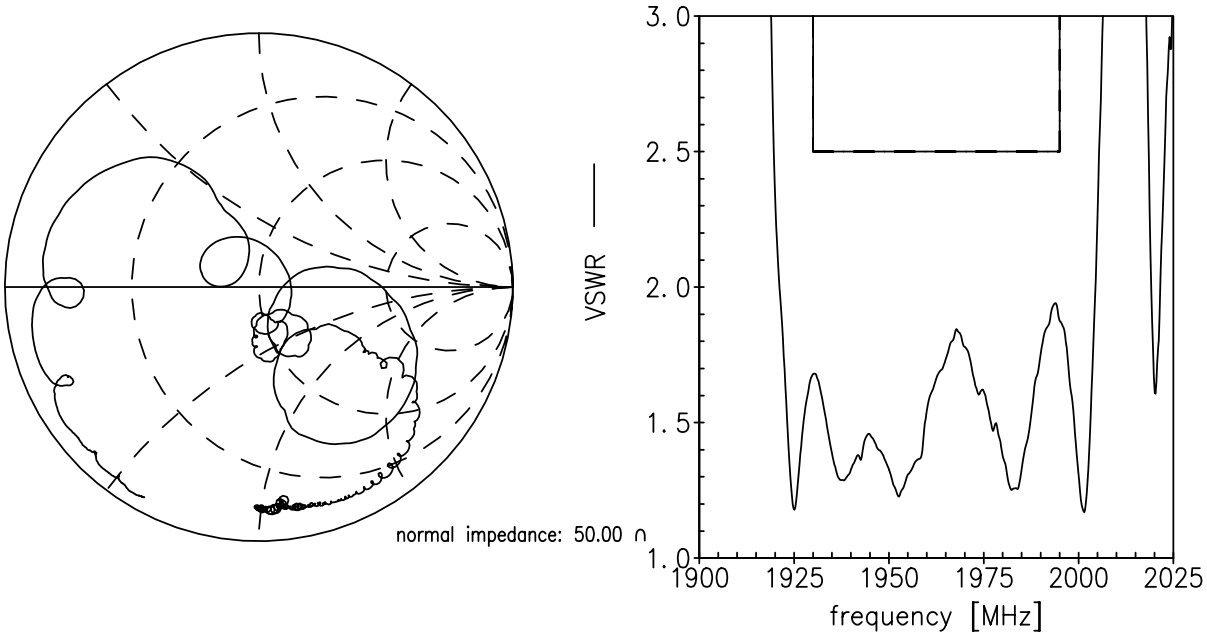


Sample data

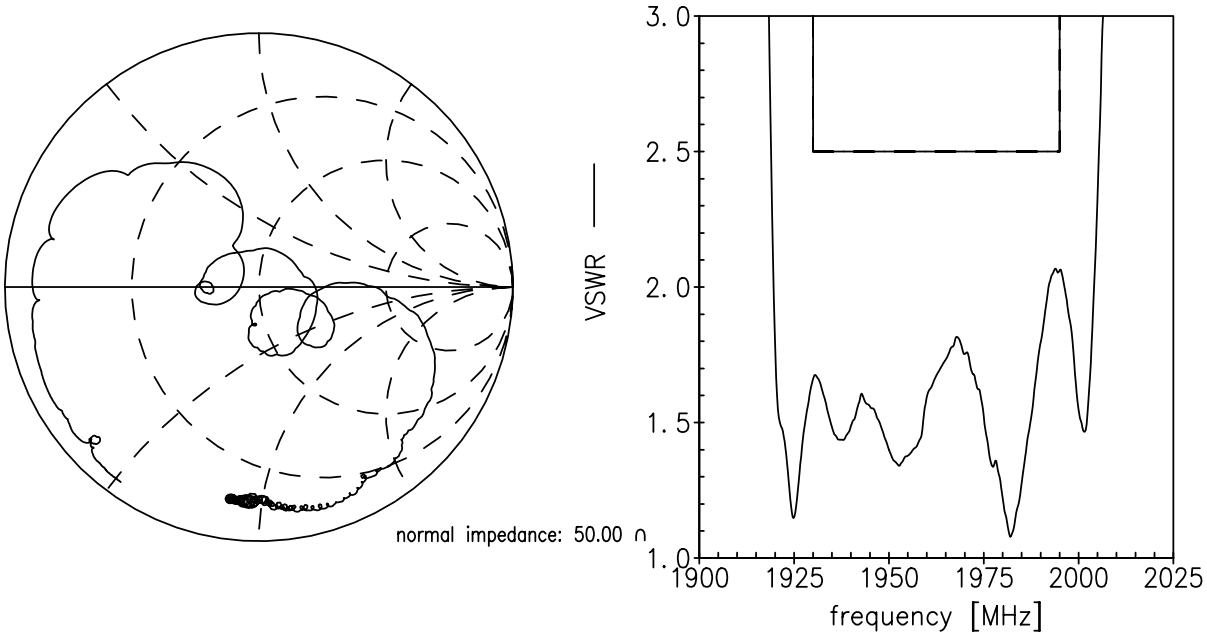
SMD

Smith chart

S_{11} function



S_{22} function



References

Type	B8310
Ordering code	B39202B8310P810
Marking and package	C61157-A8-A3
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8310_NB.s2p, B8310_WB.s2p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with therequirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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