



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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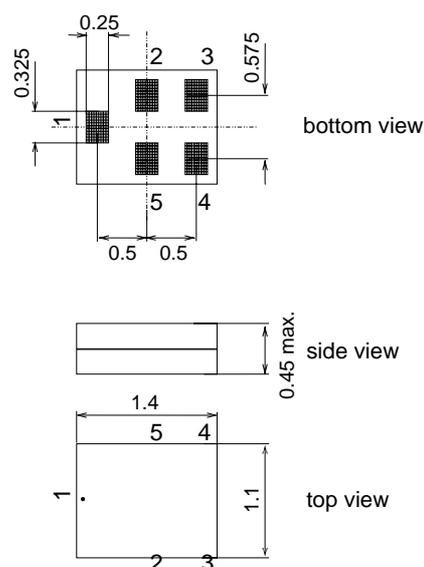
Sample data


Application

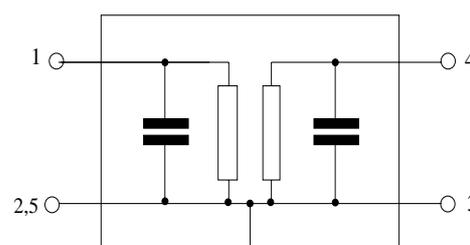
- Low-loss SAW Downlink filter for LTE femtocell system (Band 25)
- Usable passband 65MHz
- Unbalanced to unbalanced operation


Features

- Package size 1.4 x 1.1 mm²
- Maximum package height 0.45 mm
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Moisture Sensitive Level 3


Pin configuration

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



Sample data

Characteristics

Temperature range for specification:	$T = -10\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1962.5	—	MHz
Maximum insertion attenuation 1930.0 ... 1995.0MHz	α_{max}	—	3.0	3.7	dB
Amplitude ripple(p-p) 1930.0 ... 1995.0MHz	$\Delta\alpha$	—	1.5	2.2	dB
Error Vector Magnitude @ $f_{Carrier}$ 1932.4 ... 1992.6MHz	EVM ¹⁾	—	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 50 ... 1910.0MHz	α_{abs}	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


Maximum ratings

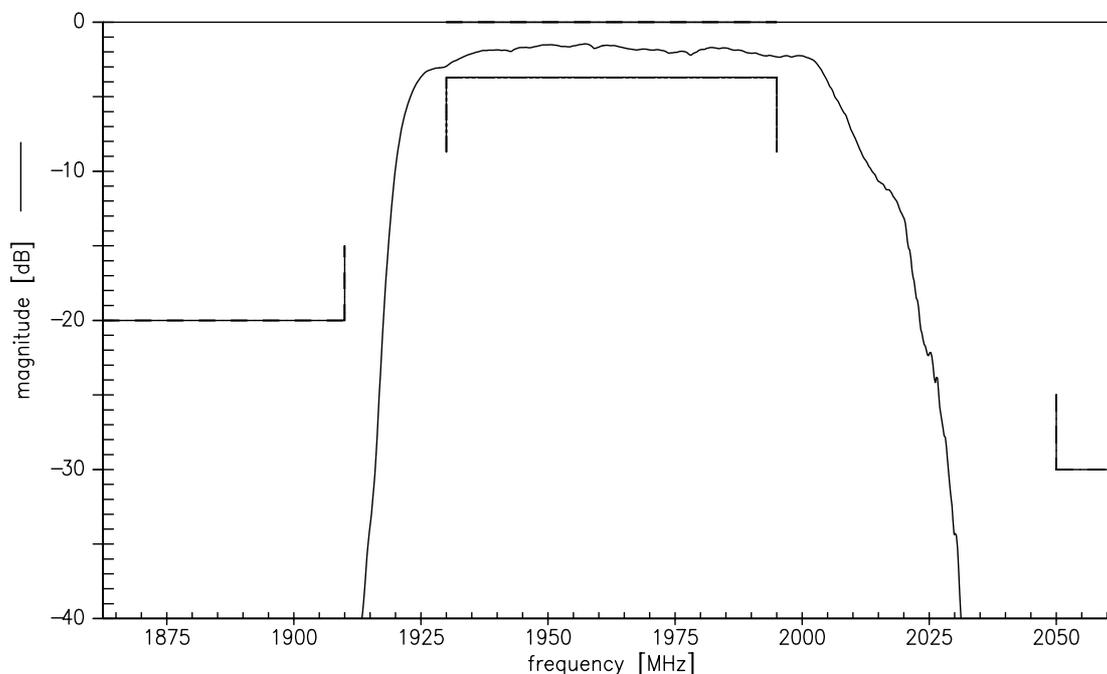
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at 1930.0...1995.0MHz	P _{IN}	16	dBm	CW @ 55°C, 100000 hrs

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

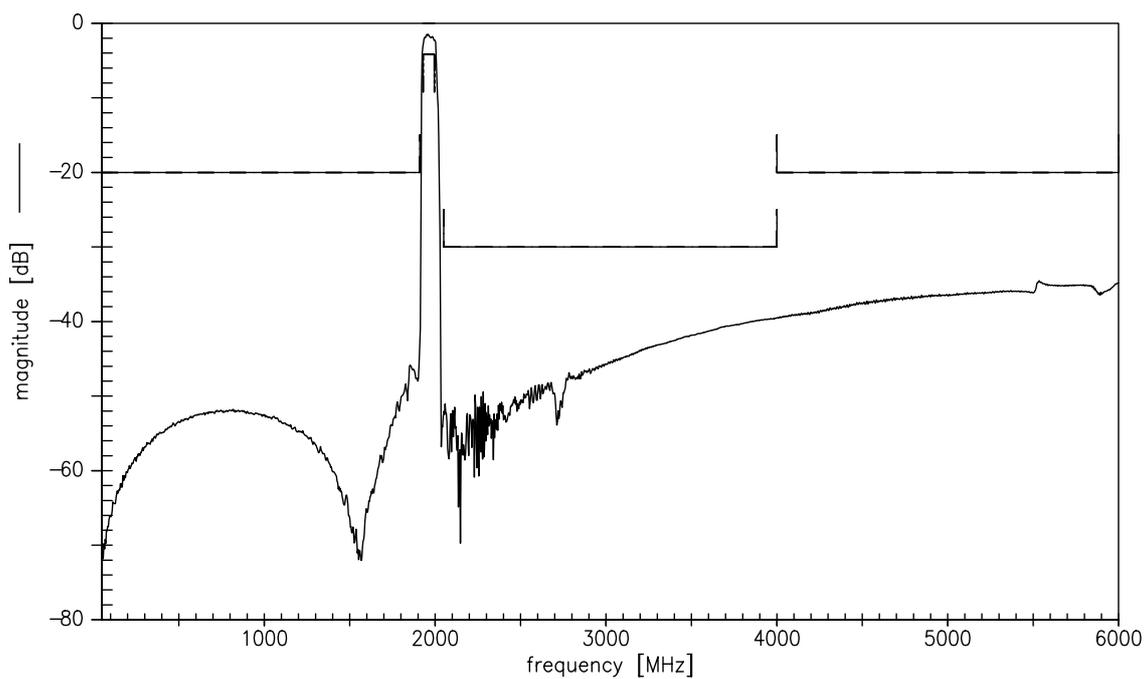
Sample data



Transfer function



Transfer function (wideband)

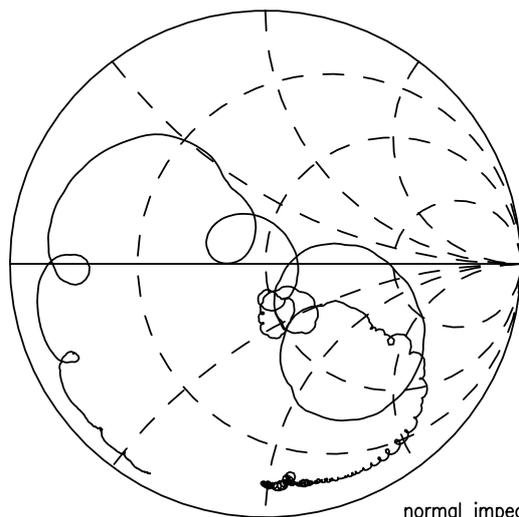


Sample data

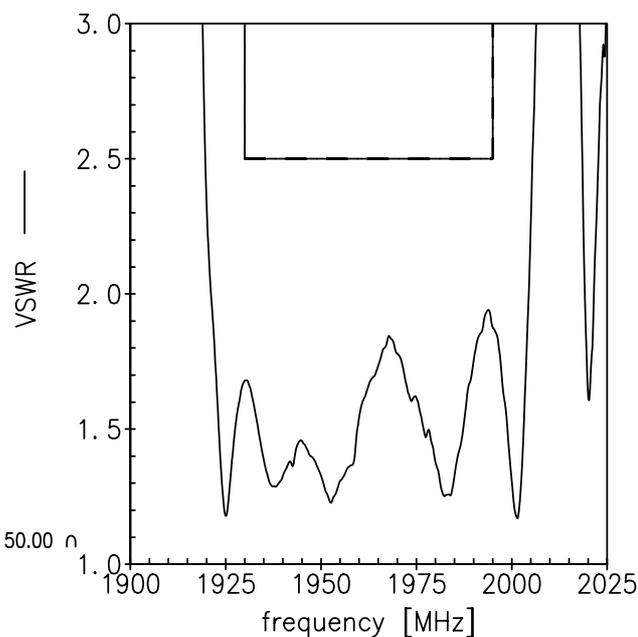


Smith chart

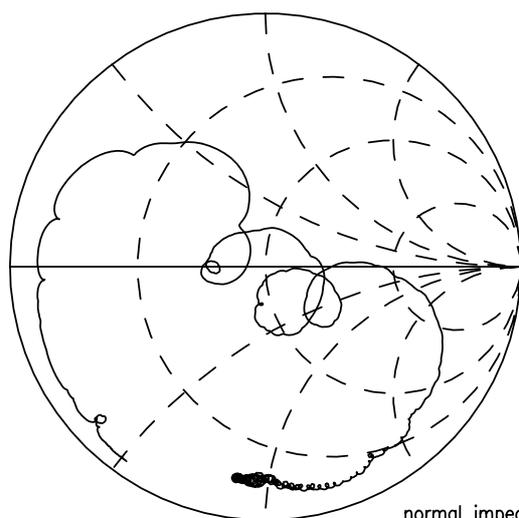
S₁₁ function



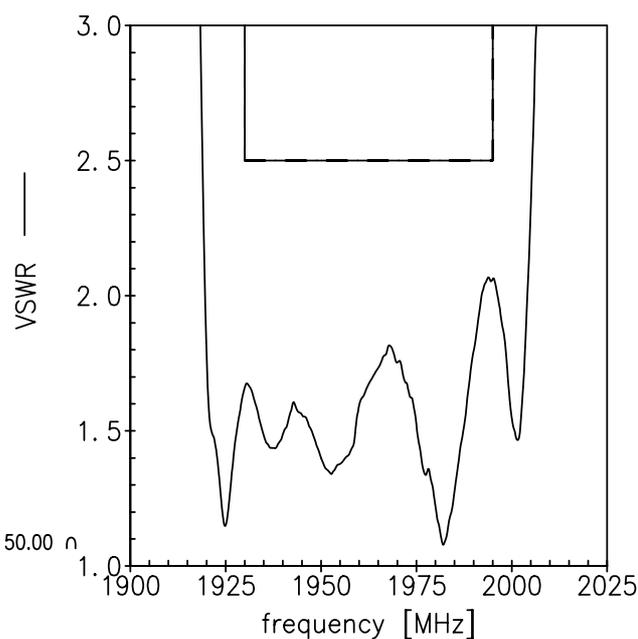
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



Sample data


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 the requirements 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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