



SAW Components

SAW filter

TD-LTE Band 38

Series/Type:	B9494
Ordering code:	B39252B9494P810
Date:	February 16, 2012
Version:	2.0

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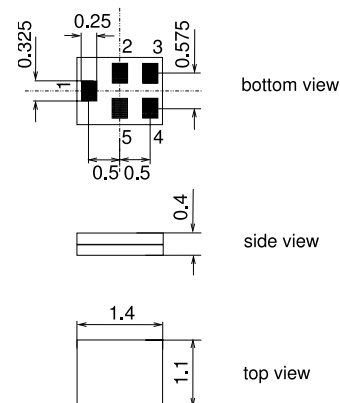
Data sheet


Application

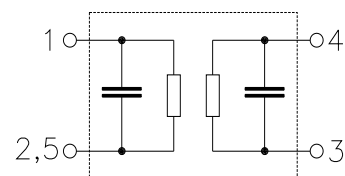
- Low-loss RF filter for mobile telephone TD-LTE Band 38 systems
- Low amplitude ripple
- Usable passband: 50 MHz
- Impedance transformation from 50 Ω to 100 Ω
- Unbalanced to balanced operation


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: $Z_L = 100\ \Omega$

		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	2595.0	—	MHz
Maximum insertion attenuation	α_{\max}	—	2.2	2.5	dB
2570.0 ... 2620.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.6	1.1	dB
2570.0 ... 2620.0 MHz					
Input VSWR		—	1.9	2.2	
2570.0 ... 2620.0 MHz					
Output VSWR		—	1.8	2.2	
2570.0 ... 2620.0 MHz					
Common mode rejection ratio		17	20	—	dB
2570.0 ... 2620.0 MHz					
Attenuation	α				
0.1 ... 2400.0 MHz		45	52	—	dB
2400.0 ... 2485.0 MHz		30	40	—	dB
2485.0 ... 2510.0 MHz		20	37	—	dB
2510.0 ... 2555.0 MHz		1.3	2.0	—	dB
2635.0 ... 2680.0 MHz		1.3	1.8	—	dB
2680.0 ... 2705.0 MHz		20	36	—	dB
2705.0 ... 6000.0 MHz		30	37	—	dB


Maximum ratings

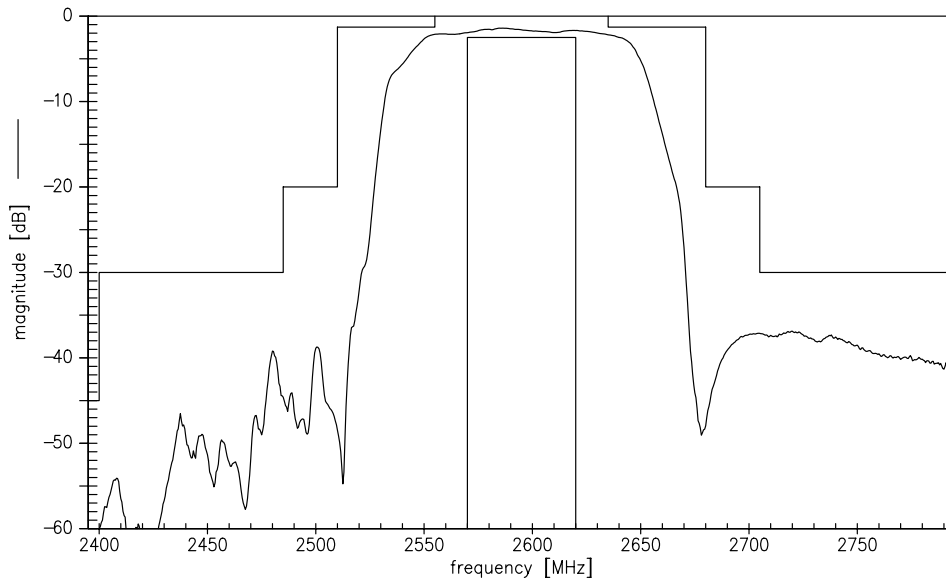
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input Power at 2570.0... 2620.0	P _{IN}	10	dBm	duty cycle 4:8

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

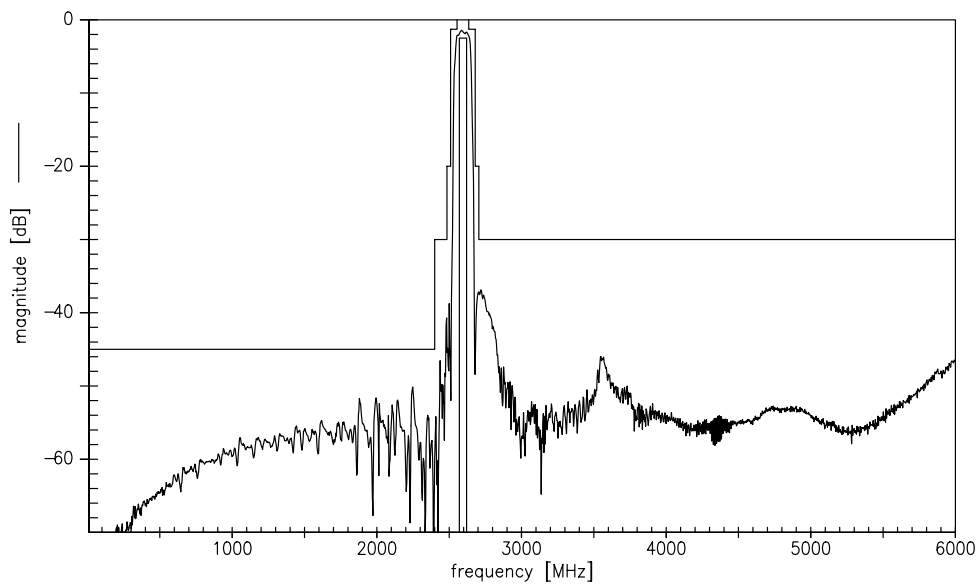
Data sheet



Transfer function



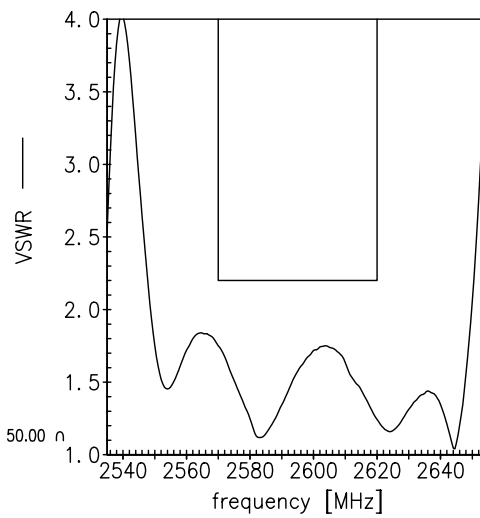
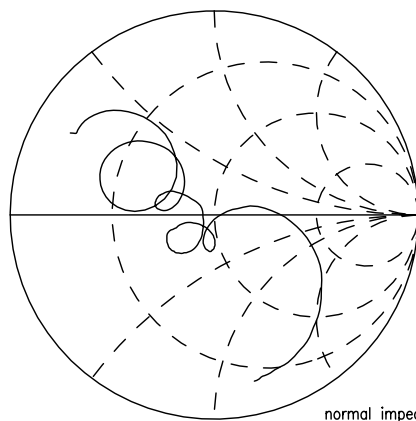
Transfer function (wideband)



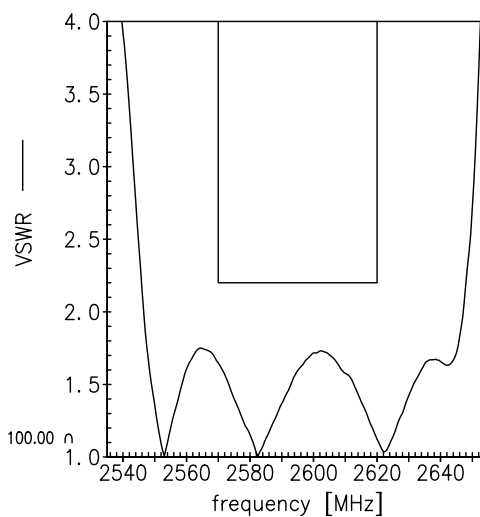
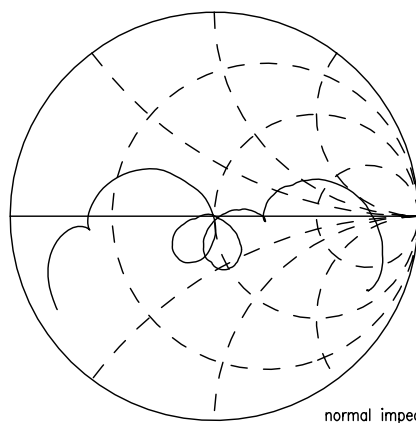


Smith charts

S_{11} function



S_{22} function



SAW Components	B9494
SAW Filter	2595.0 MHz
Data sheet	

References

Type	B9494
Ordering code	B39252B9494P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9494_NB.s3p, B9494_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."
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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