SAW Components

SAW Tx Filter

WCDMA/LTE Band 7

Series/Type:	**B9495**
Ordering code:	**B39252B9495P810**
Date:	July 31, 2015
Version:	2.1

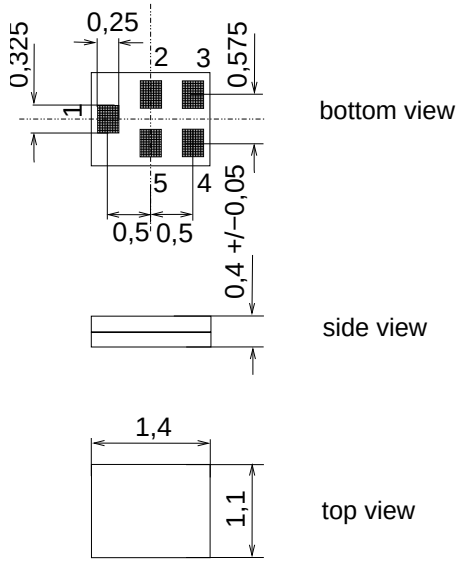
Data Sheet SMD

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

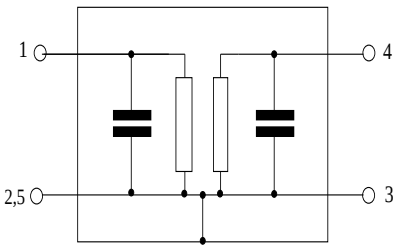
Features

- Package size 1.4 x1.1 x 0.4 mm³
- RoHS compatible
- Approx. weight 0.003 g
- Package for **S**urface **M**ount **T**echology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitive **L**evel 3



Pin configuration

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



Data Sheet SMD

Characteristics

Operating temperature range: T = –20 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

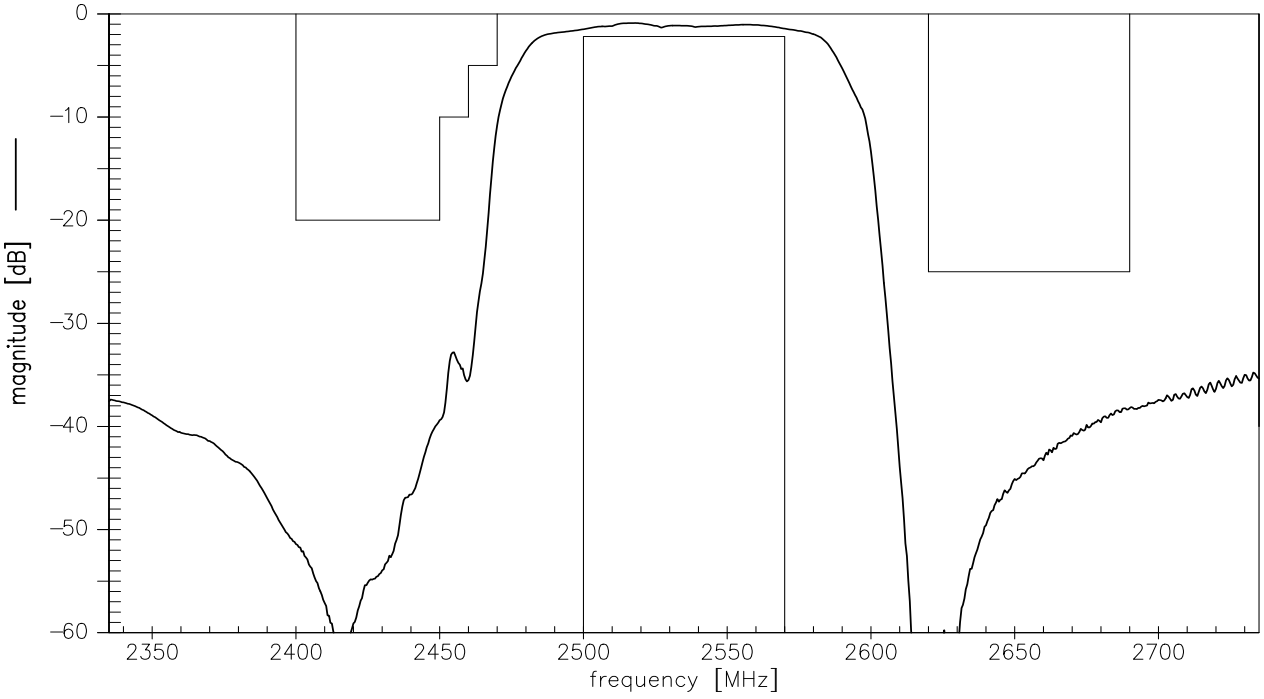
		min.	typ. @ 25˚C	max.	
Center frequency	f_C	—	2535.0	—	MHz
Maximum insertion attenuation	α_{max}				
2500.0 ... 2570.0 MHz		—	1.8	2.2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2500.0 ... 2570.0 MHz		—	0.8	1.3	dB
Input VSWR					
2500.0 ... 2570.0 MHz		—	2.0	2.2	
Output VSWR					
2500.0 ... 2570.0 MHz		—	2.0	2.2	
Attenuation	α				
1565.0 ... 1607.0 MHz		25	28	—	dB
2400.0 ... 2450.0 MHz		20	32	—	dB
2450.0 ... 2460.0 MHz		10	20	—	dB
2460.0 ... 2470.0 MHz		5	6	—	dB
2620.0 ... 2690.0 MHz		25	37	—	dB
5000.0 ... 5140.0 MHz		40	51	—	dB
7500.0 ... 7710.0 MHz		—	30	—	dB

Maximum ratings

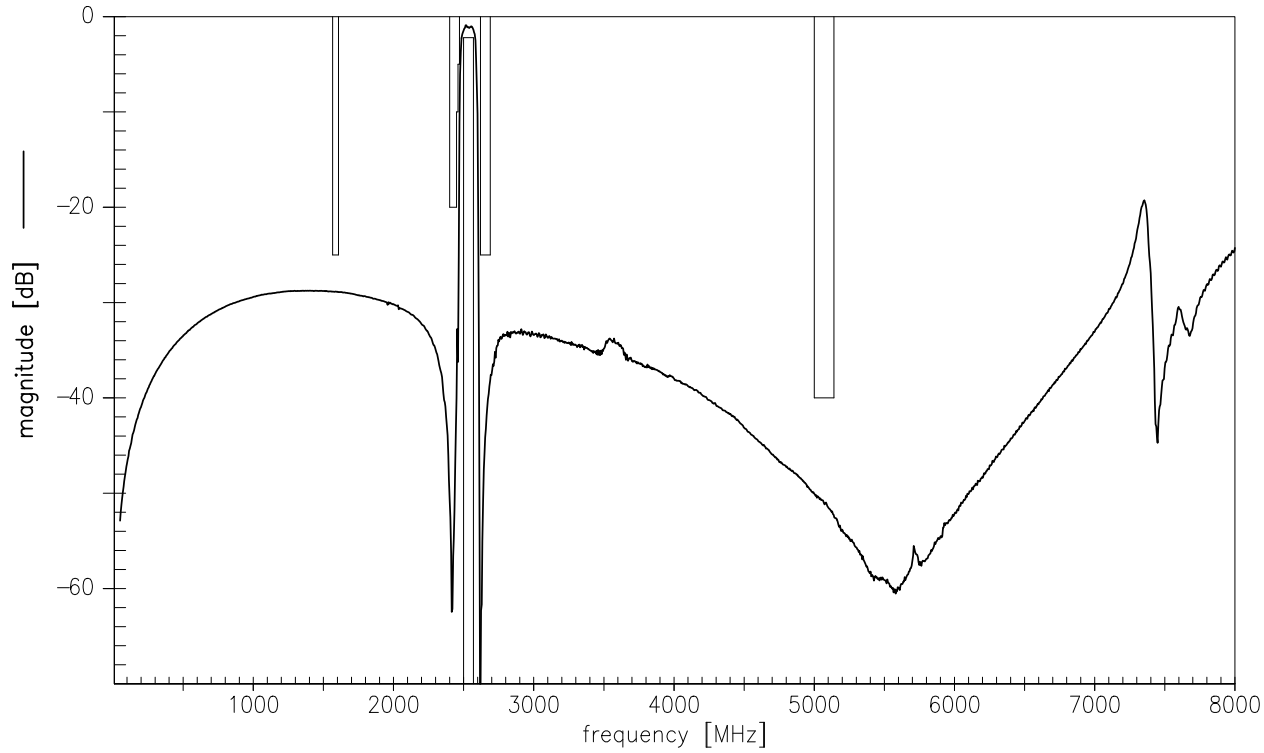
Storage temperature range	T_{stg}	–40/+85	°C	
DC voltage	V_{DC}	5[1)]	V	
ESD voltage	V_{ESD}	50[2)]	V	Machine Model
		200[3)]	V	Human Body Model
		600[4)]	V	Charge Device Model
Input Power at 2500.0...2570.0 MHz	P_{IN}	10	dBm	continuous wave

1) 168h Damp Heat Steady State acc. to IEC 60068-2-67 Cy.
2) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.
3) acc. to JESD22-A114F (HBM - Human Body Model) , 1 negative & 1 positive pulses.
4) acc. to JESD22-C101C (CDM - Field Induced Charged Device Model) , 3 negative & 3 positive pulses.

Transfer function

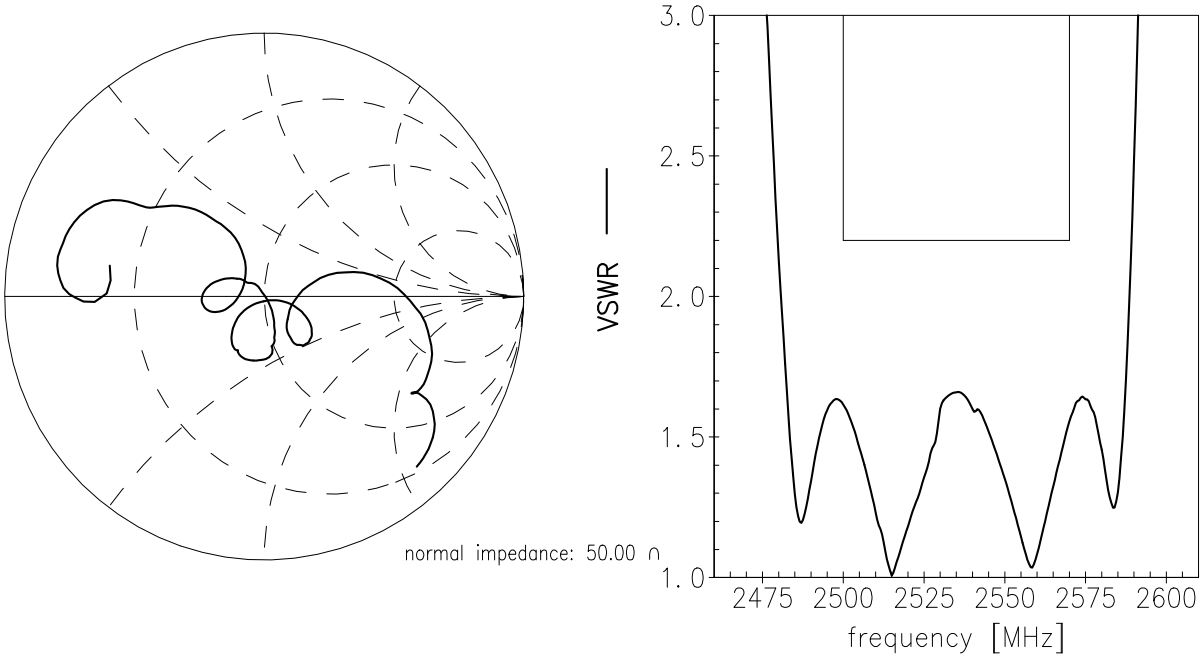


Transfer function (wideband)

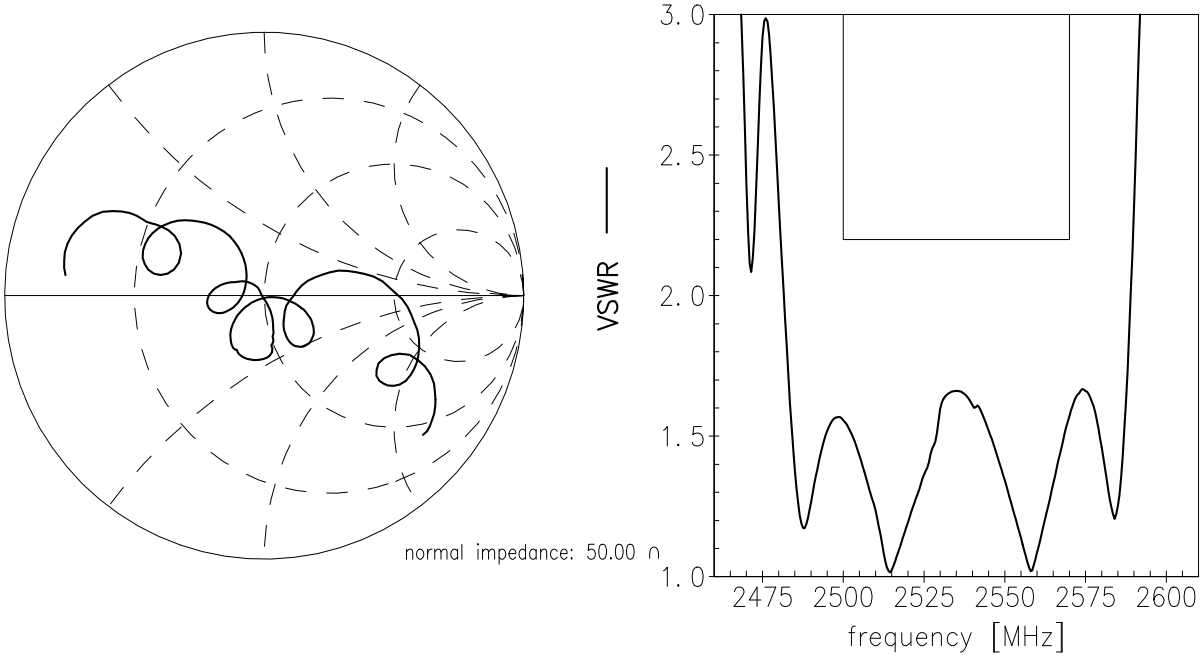


Smith charts

S_{11} function



S_{22} function



References

Type	B9495
Ordering code	B39252B9495P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9495_NB_UN.s2p, B9495_WB_UN.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.
Matching coils	See http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation 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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