



SAW Components

SAW filter

WCDMA Band I

Series/type:	B5127
Ordering code:	B39192B5127U410

Date:	July 30, 2009
Version:	2.0



SAW Components	B5127
SAW filter	1950.0 MHz

Data sheet



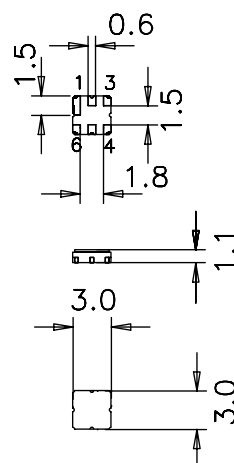
Application

- Low-loss base-station RF filter
- Low amplitude ripple
- No matching required for operation at 50Ω
- Usable passband 20 MHz



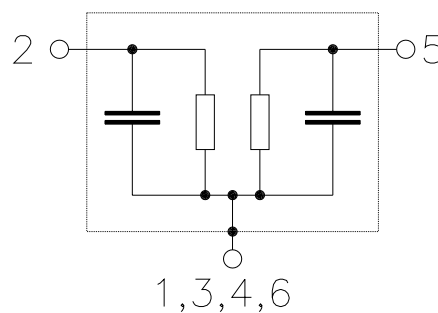
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input unbalanced
- 5 Output unbalanced
- 1,3,4,6 To be grounded





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Characteristics

Temperature range for specification: $T = -33\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\Omega$
 Terminating load impedance: $Z_L = 50\Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1950.0	—	MHz
Maximum insertion attenuation	α_{\max}				
	$f_C \pm 10.0\text{ MHz}$	—	2.5	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_C \pm 10.0\text{ MHz}$	—	0.5	1.0	dB
Input VSWR					
	$f_C \pm 10.0\text{ MHz}$	—	1.7:1	2.0:1	
Output VSWR					
	$f_C \pm 10.0\text{ MHz}$	—	1.6:1	2.0:1	
Group Delay Ripple (p-p)	$\Delta\tau$				
	$f_C \pm 10.0\text{ MHz}$	—	5	15	ns
Attenuation	α_{abs}				
	800.0 ... 960.0 MHz	37.0	47.0	—	dB
	1160.0 ... 1220.0 MHz	43.0	55.0	—	dB
	1540.0 ... 1600.0 MHz	36.0	44.0	—	dB
	1730.0 ... 1790.0 MHz	30.0	39.0	—	dB
	1884.5 MHz	30.0	33.0	—	dB
	1900.0 MHz	30.0	40.0	—	dB
	1919.6 MHz	6.5	9.5	—	dB
	2110.0 ... 2170.0 MHz	32.0	38.0	—	dB



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Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 1 pulse
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	
Input power				
1940 ... 1960 MHz	P _{IN}	0	dBm	CW

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

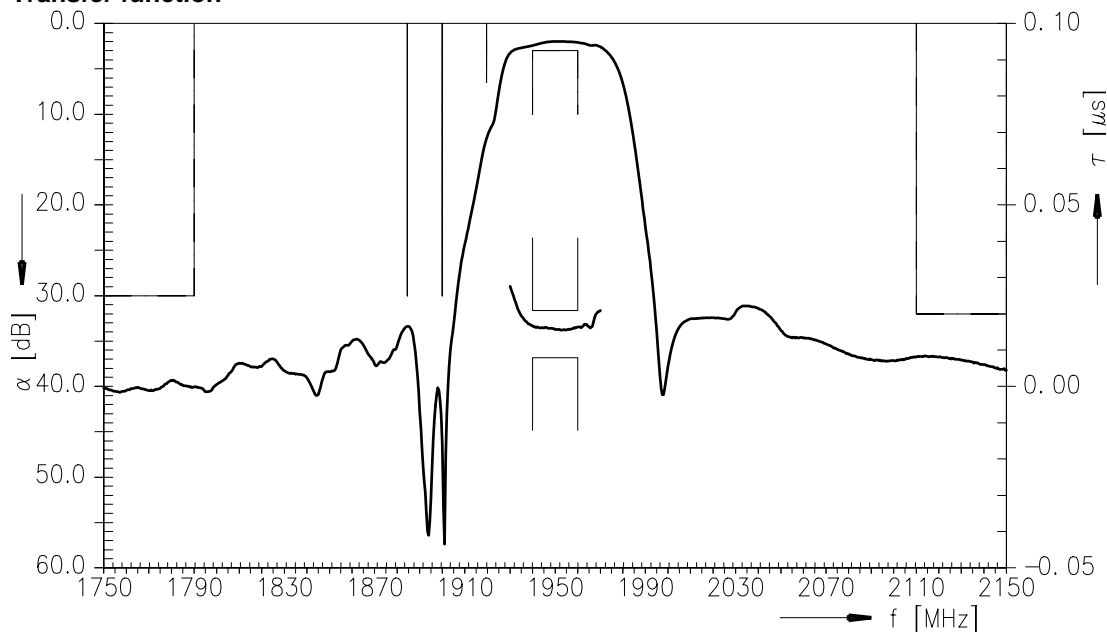


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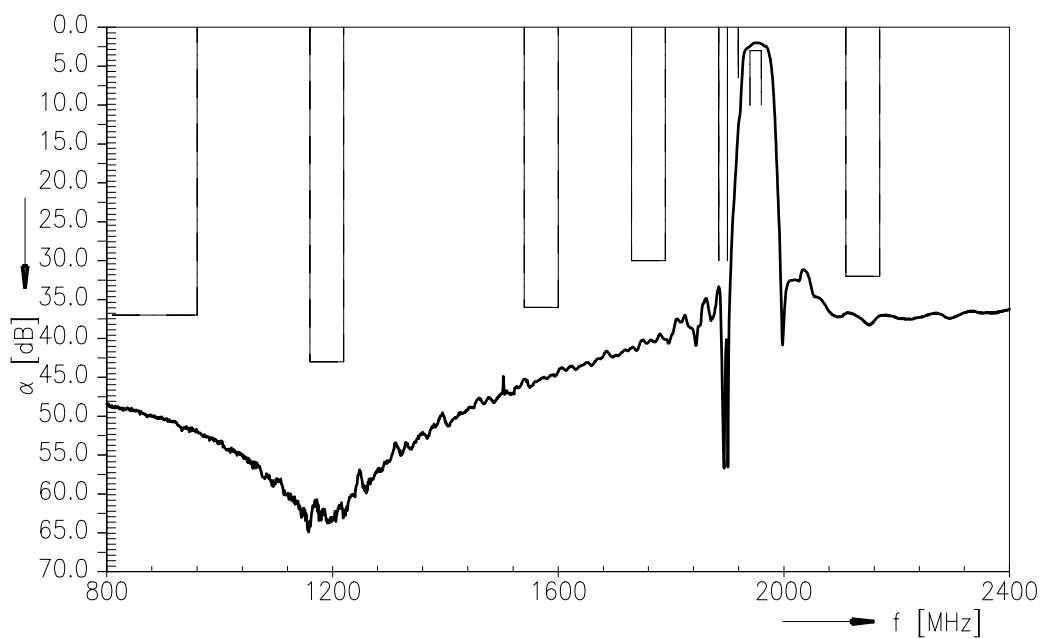
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SMD

Transfer function



Transfer function (wideband)





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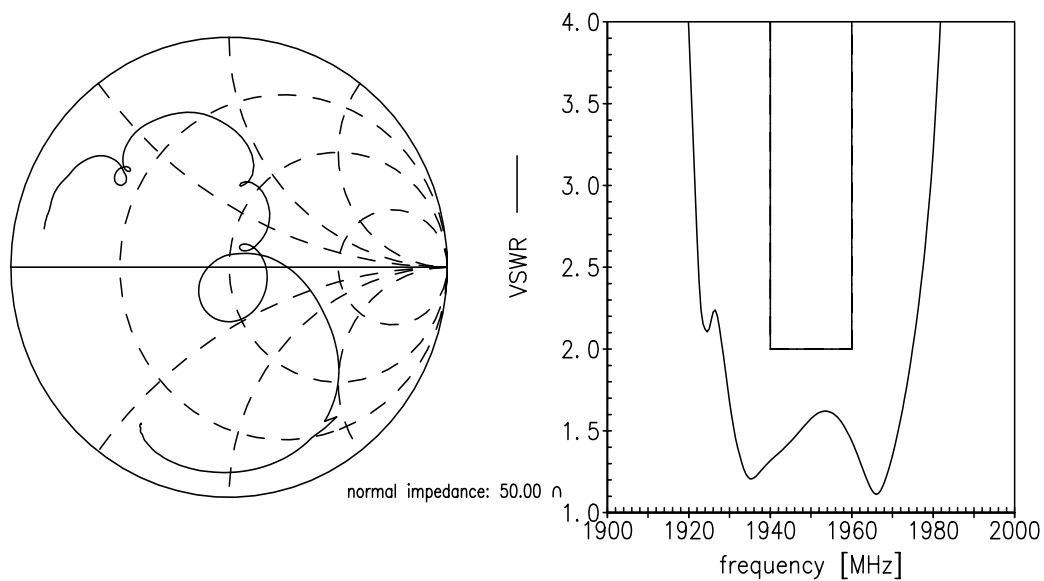
1950.0 MHz

Data sheet

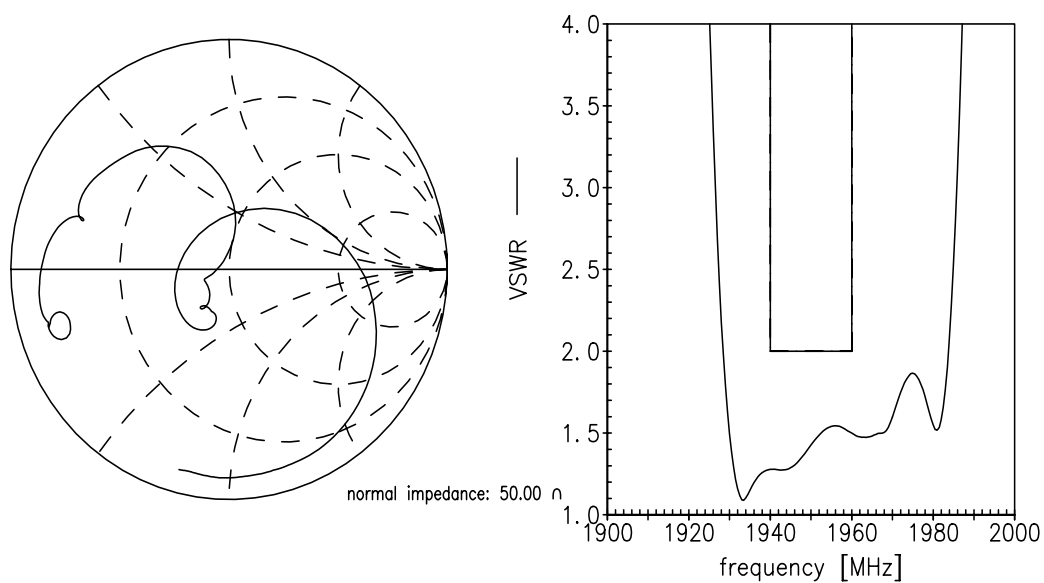


Smith charts

S₁₁ function



S₂₂ function





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References

Type	B5127
Ordering code	B39192B5127U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5127_NB.s2p B5127_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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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