



SAW Components

SAW filter

WCDMA Band I

Series/type: B5127
Ordering code: B39192B5127U410

Date: July 30, 2009
Version: 2.0

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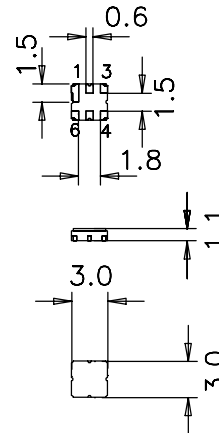
Application

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



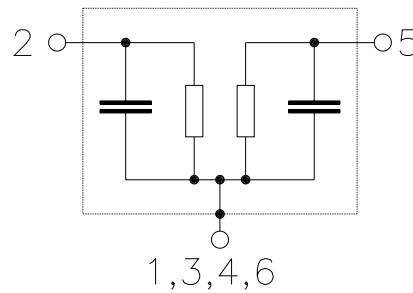
Features

- 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



Please read *cautions and warnings and important notes* at the end of this document.



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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

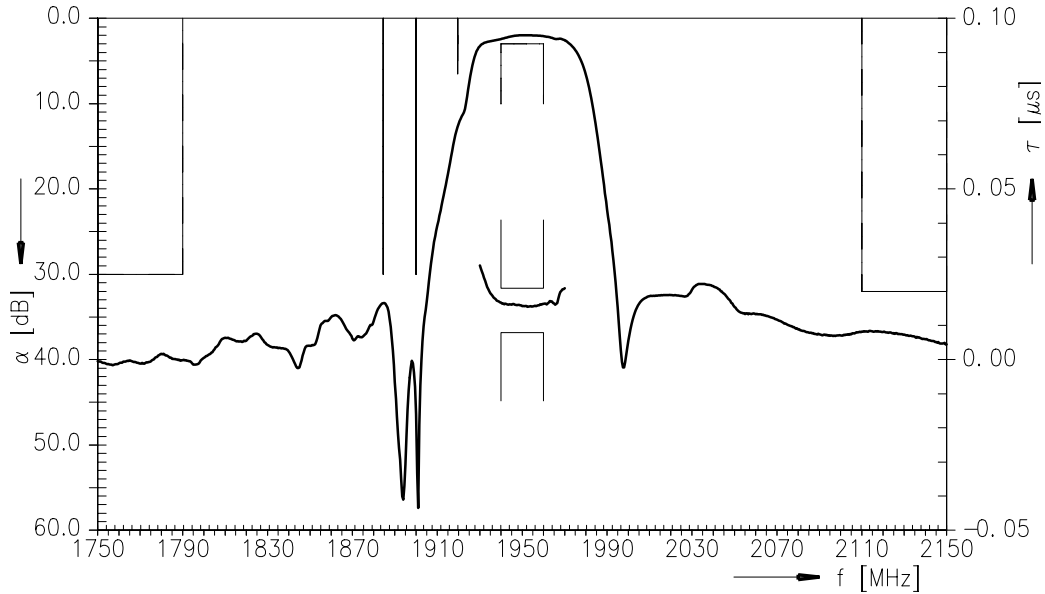
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power				
1940 ... 1960 MHz	P _{IN}	0	dBm	CW

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

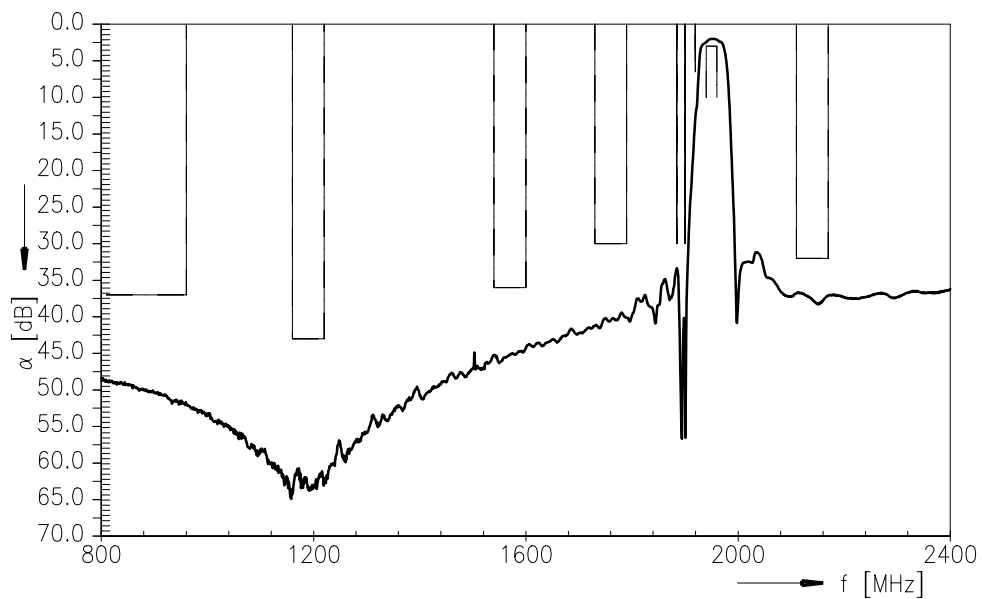
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Transfer function



Transfer function (wideband)



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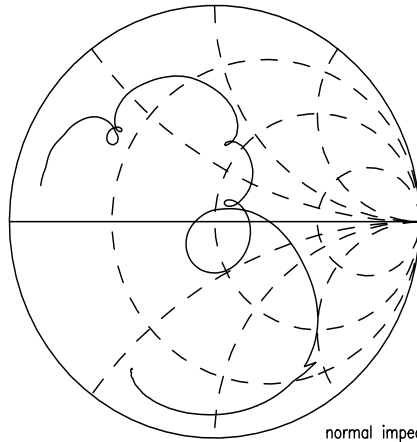


Data sheet

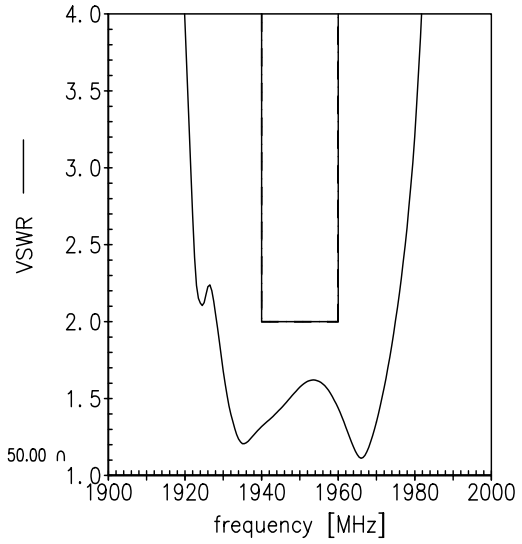


Smith charts

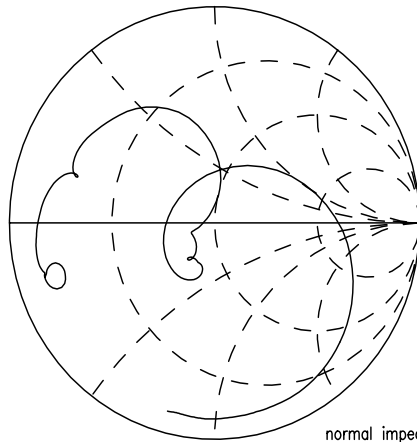
S₁₁ function



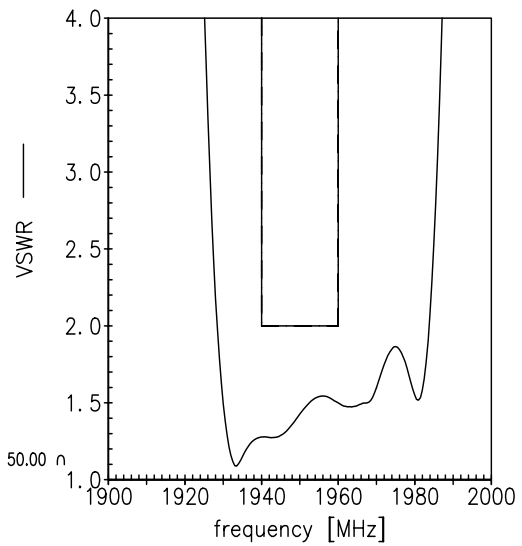
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



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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."

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