



SAW Components

SAW filter

Base-station RF

Series/type:	B5129
Ordering code:	B39192B5129U410
Date:	February 26, 2010
Version:	2.0

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1900.0 MHz

Data sheet



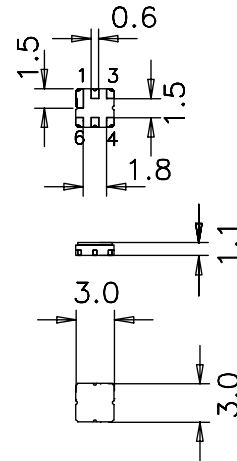
Application

- Low-loss base-station RF filter
- Low amplitude ripple
- No matching required for operation at 50Ω
- Usable passband 40 MHz



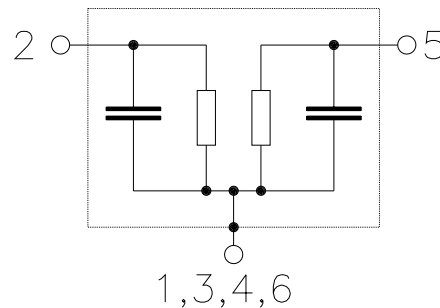
Features

- 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: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	1900.0	—	MHz
Minimum insertion attenuation	α_{\min}				
	$f_N \pm 20.0\text{ MHz}$	—	2.8	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 20.0\text{ MHz}$	—	0.8	1.2	dB
VSWR					
Input	$f_N \pm 20.0\text{ MHz}$	—	1.7:1	2.0:1	
Output	$f_N \pm 20.0\text{ MHz}$	—	1.7:1	2.0:1	
Relative attenuation (relative to α_{\min})	α_{rel}				
	10 ... 1700 MHz	32	45	—	dB
	1700 ... 1830 MHz	32	36	—	dB
	1830 ... 1845 MHz	20	33	—	dB
	1942 ... 1970 MHz	4	11	—	dB
	1970 ... 2400 MHz	35	43	—	dB
	2400 ... 3500 MHz	30	40	—	dB
	3500 ... 4000 MHz	22	35	—	dB
	4000 ... 6000 MHz	13	22	—	dB

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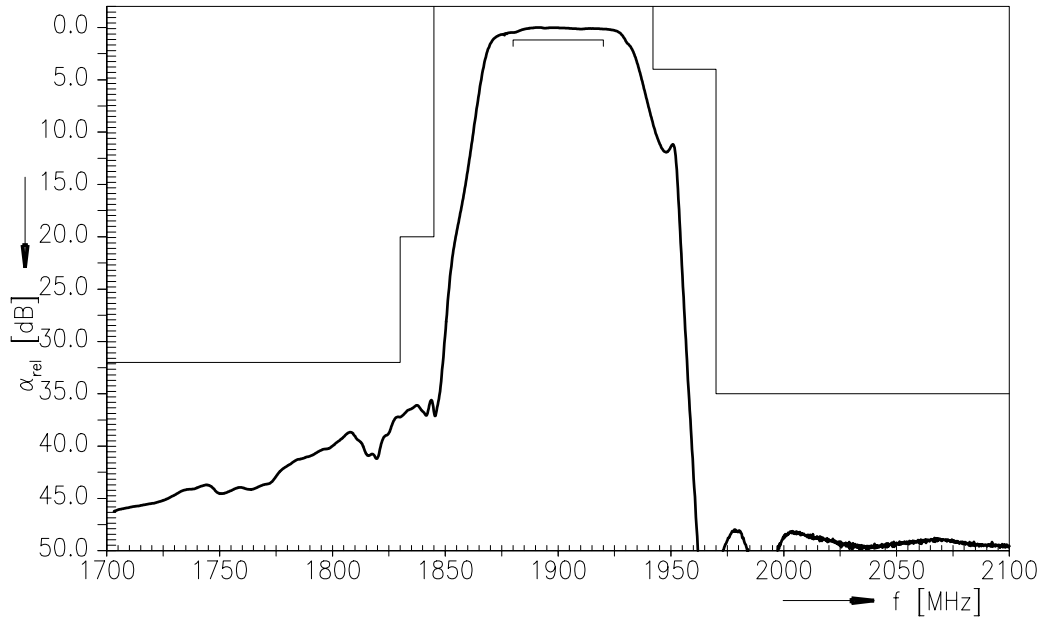


Maximum ratings

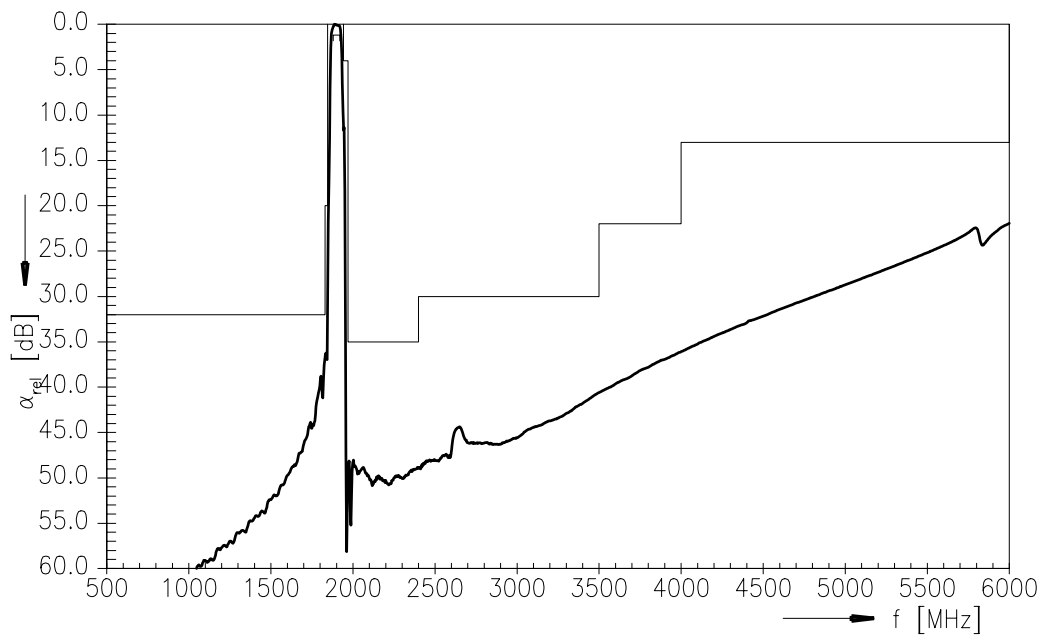
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power				
1805 ... 1850 MHz	P _{IN}	11	dBm	CW
1880 ... 1920 MHz	P _{IN}	10	dBm	CW

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

Transfer function (normalized)



Transfer function (wideband, normalized)

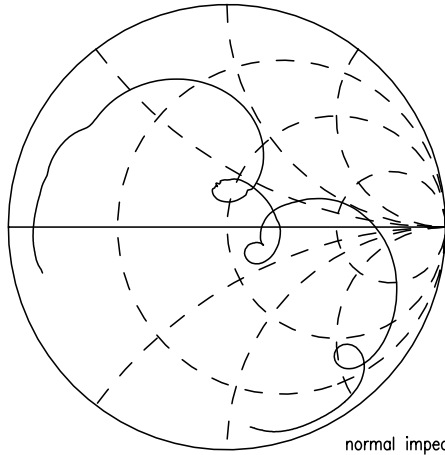


Data sheet

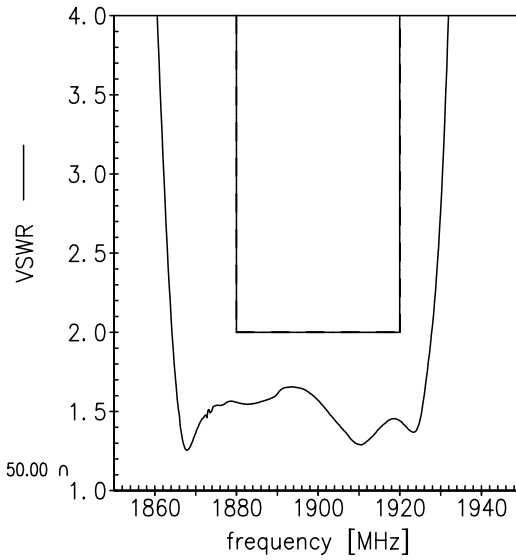


Smith charts

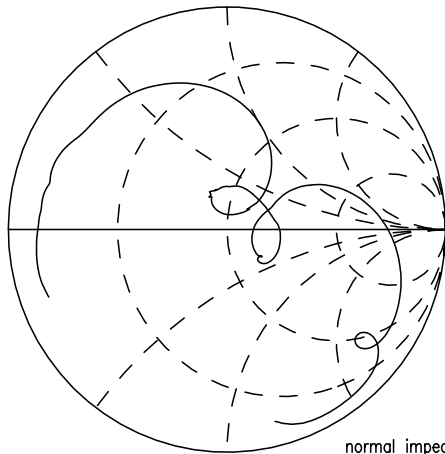
S_{11} function



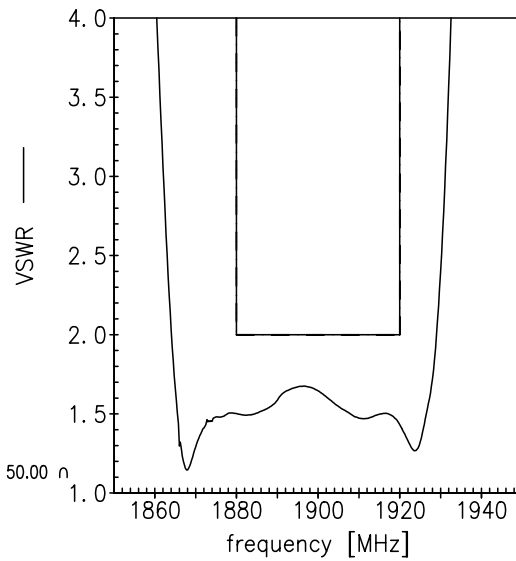
normal impedance: 50.00 Ω



S_{22} function



normal impedance: 50.00 Ω





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References

Type	B5129
Ordering code	B39192B5129U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5129_NB.s2p B5129_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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