SAW Components

SAW filter

Base-station RF

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

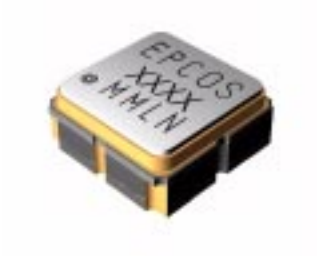
EPCOS

SAW Components	B5129
SAW filter	**1900.0 MHz**

Data sheet SMD

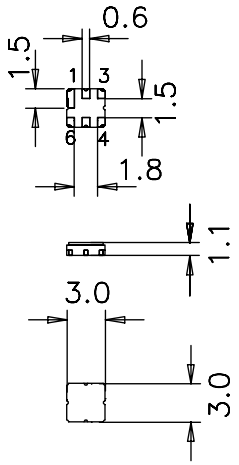
Application

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



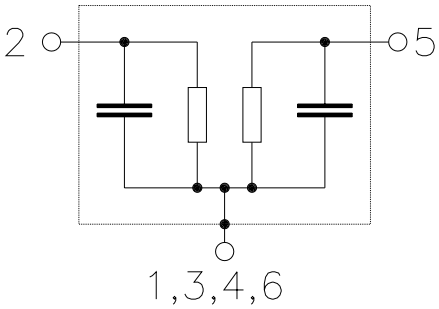
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Data sheet SMD

Characteristics

Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

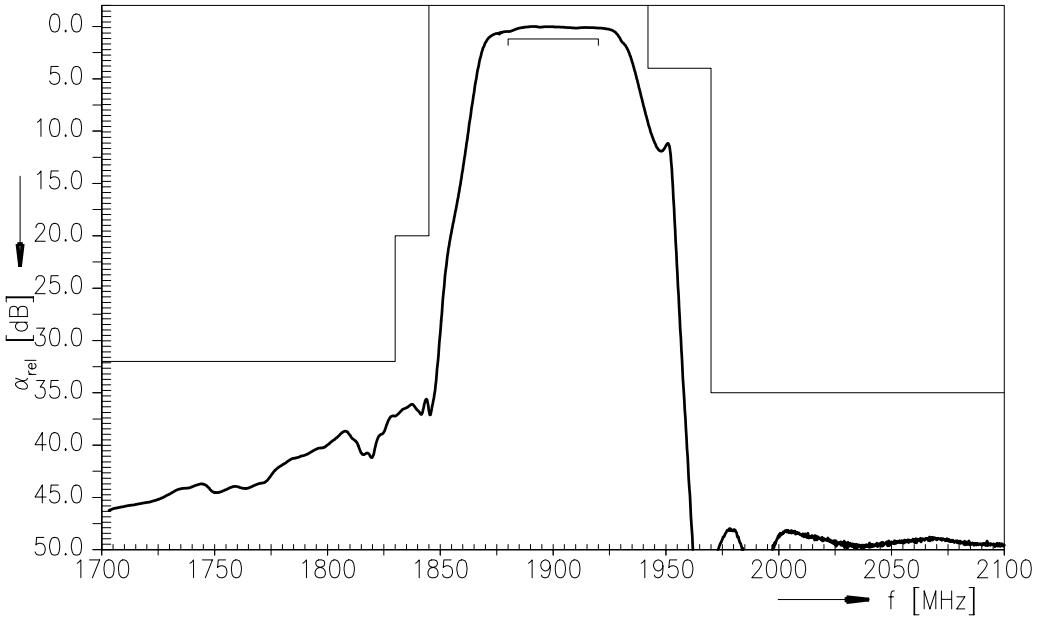
		min.	typ. @ 25 ˚C	max.	
Nominal frequency	f_N	—	1900.0	—	MHz
Minimum insertion attenuation	α_{min}				
f_N ± 20.0 MHz		—	2.8	3.0	dB
Amplitude ripple (p-p)	Δα				
f_N ± 20.0 MHz		—	0.8	1.2	dB
VSWR					
Input f_N ± 20.0 MHz		—	1.7:1	2.0:1	
Output f_N ± 20.0 MHz		—	1.7:1	2.0:1	
Relative attenuation(relative 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

Maximum ratings

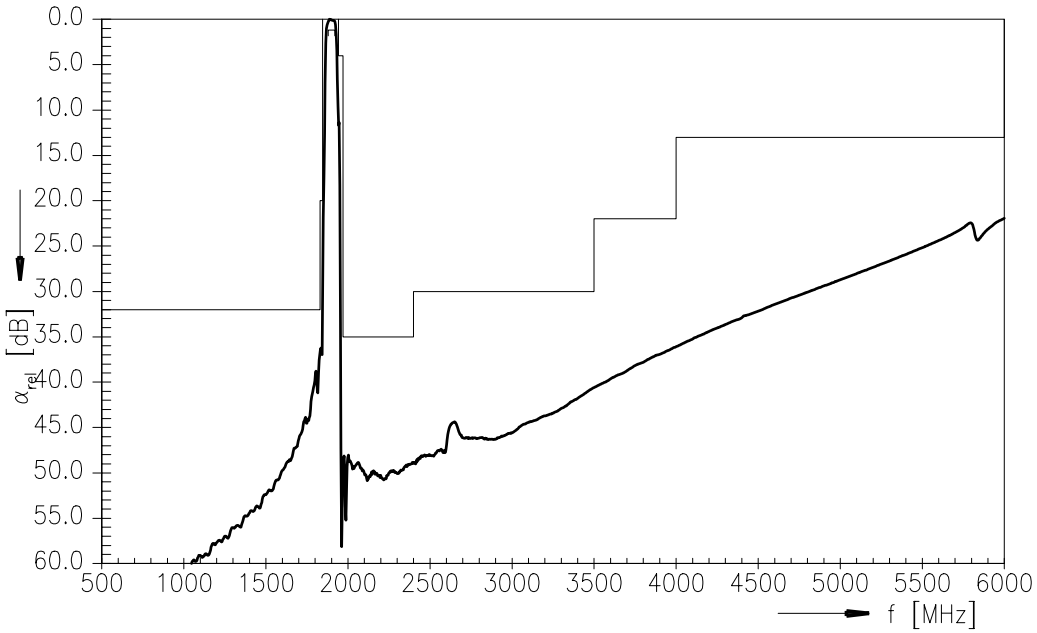
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model, 1 pulse
Input power				
1805 ... 1850 MHz	P_{IN}	11	dBm	CW
1880 ... 1920 MHz	P_{IN}	10	dBm	CW

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

Transfer function (normalized)

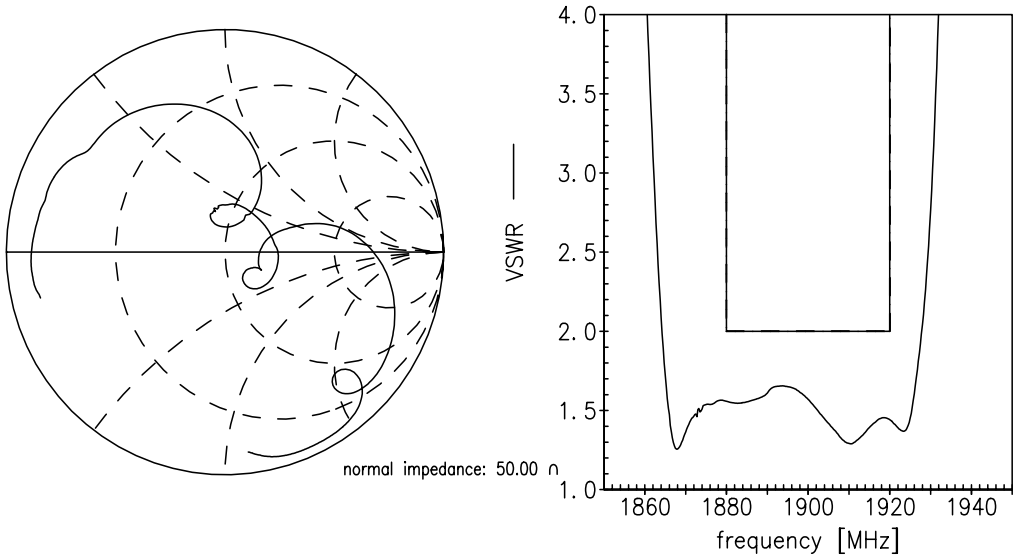


Transfer function (wideband, normalized)

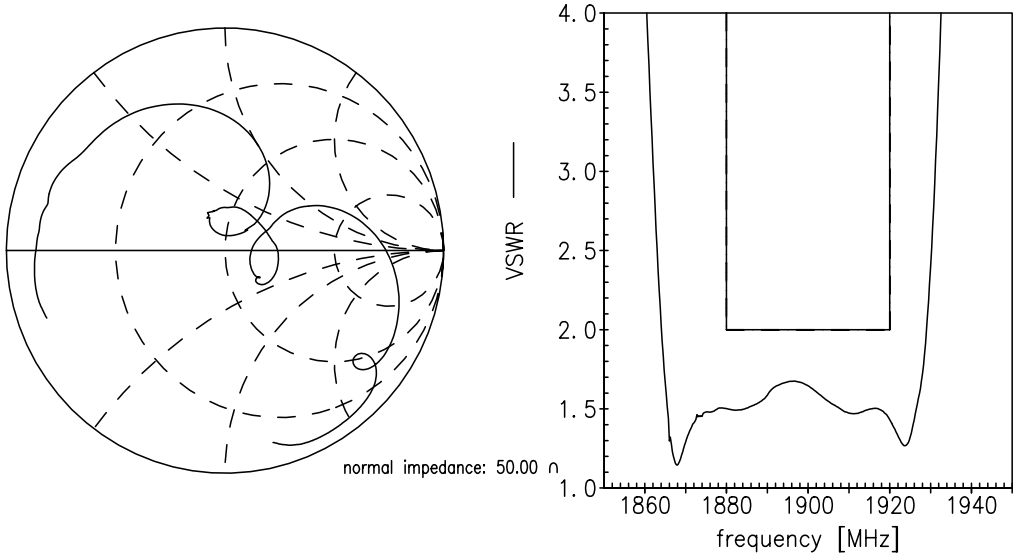


Smith charts

S_{11} function



S_{22} function



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."

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