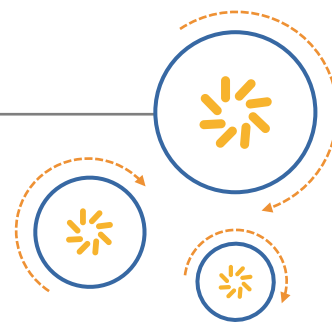




RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

SAW Components

SAW filter

PCS+G RF Tx filter

Series/type:	B5142
Ordering code:	B39202B5142U410
Date:	June 16, 2010
Version:	2.0

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SAW Components

B5142

SAW filter

1962.50 MHz

Data sheet

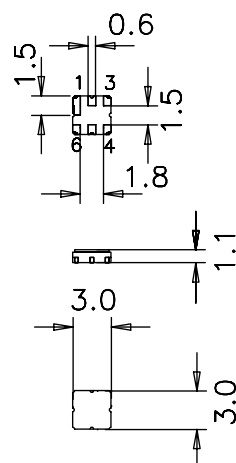


Application

- Low-loss RF filter for PCS+G base-station Tx path
- Low amplitude ripple
- No matching required for operation at 50Ω
- Usable passband 65 MHz

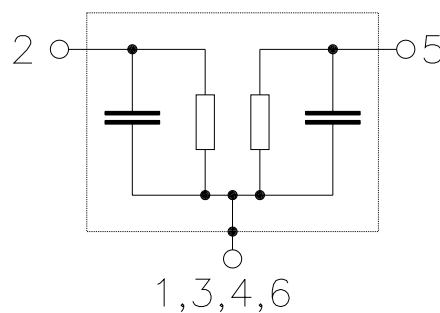
Features

- 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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SAW Components
B5142
SAW filter
1962.50 MHz
Data sheet

Characteristics

Temperature range for specification: $T = -40\text{ }^{\circ}\text{C to } +85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

					min.	typ. @ 25 °C	max.	
Center frequency	f_C				—	1962.50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	1930	...	1995 MHz	—	2.9	4.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1930	...	1995 MHz	—	1.2	2.4	dB
Return loss								
Input		1930	...	1995 MHz	8	11	—	dB
Output		1930	...	1995 MHz	8	12	—	dB
Attenuation	α_{abs}							
		1850	...	1875 MHz	15	17	—	dB
		1875	...	1905 MHz	13	16	—	dB
		1905	...	1915 MHz	3	8	—	dB
		2022	...	2070 MHz	15	25	—	dB

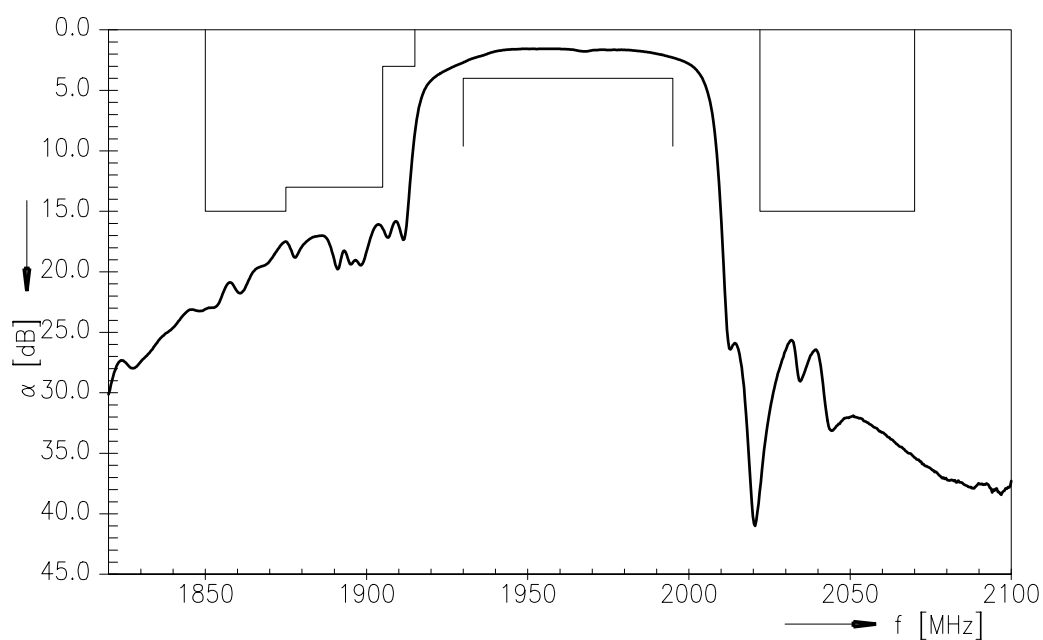
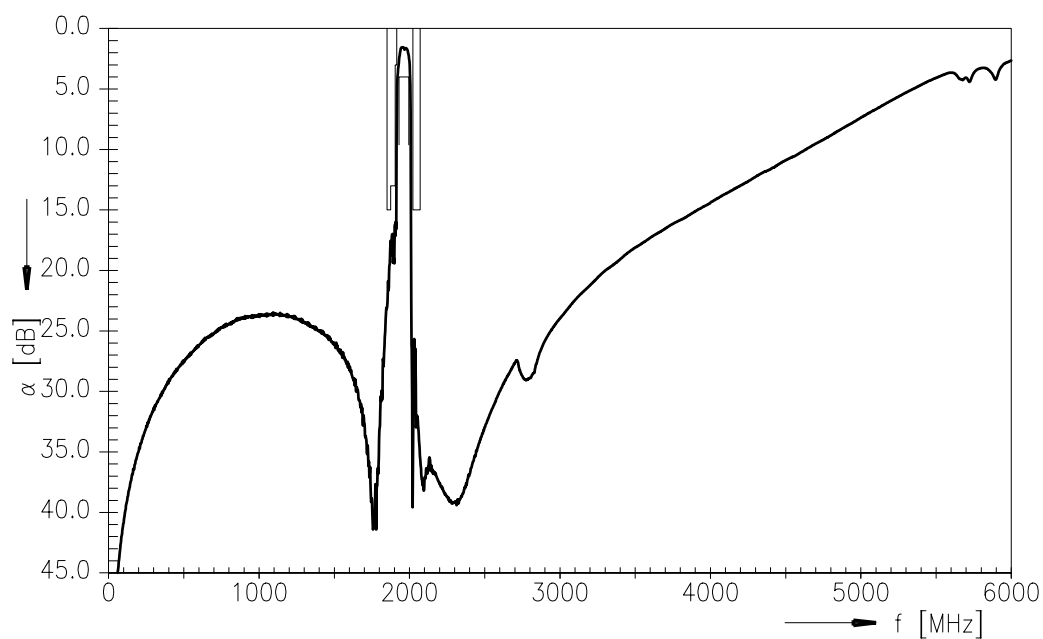
SAW Components
B5142
SAW filter
1962.50 MHz
Data sheet

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
	V _{ESD}	150 ²⁾	V	human body model, 1 pulse
Input power				
1930 ... 1995 MHz	P _{IN}	10	dBm	CW

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

²⁾ acc. to JESD22-A114B (human body model), 1 negative & 1 positive pulse.

Transfer function

Transfer function (wideband)


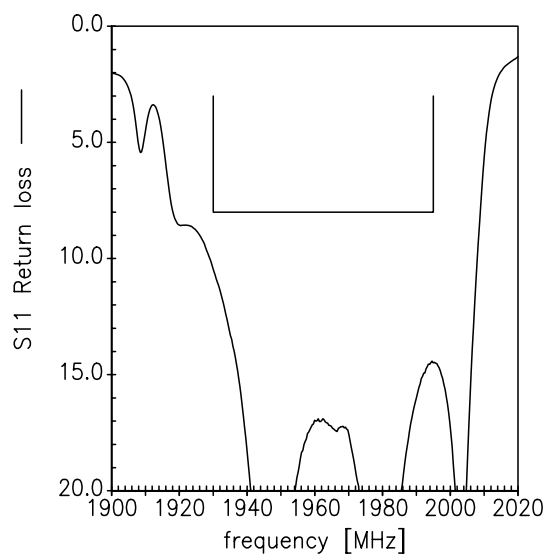
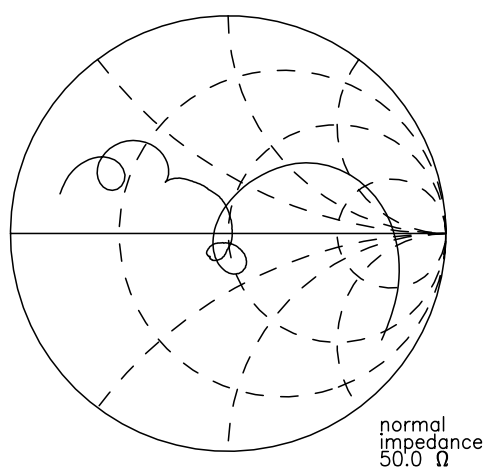
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Data sheet

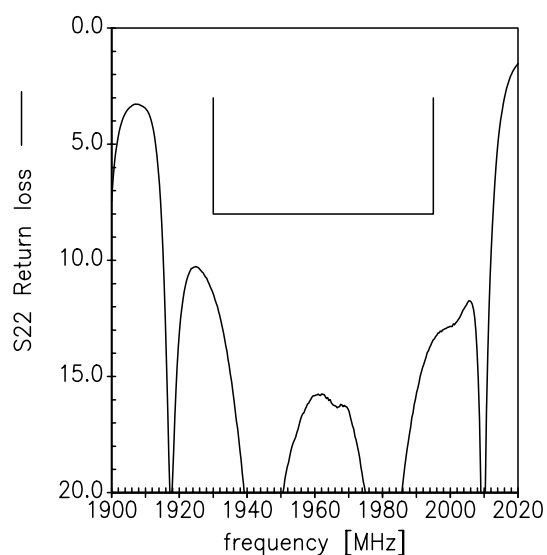
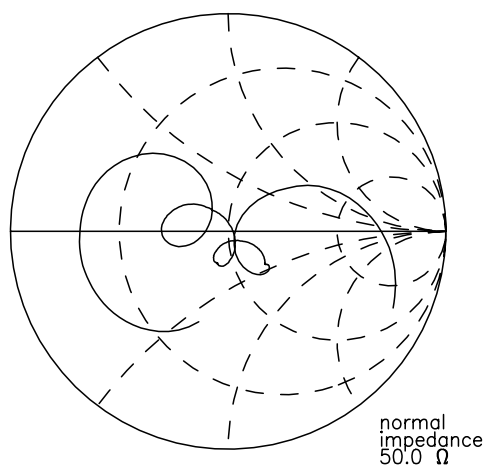


Smith charts

S_{11} function



S_{22} function



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SAW Components
B5142
SAW filter
1962.50 MHz

Data sheet


References

Type	B5142
Ordering code	B39202B5142U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5142_NB.s2p B5142_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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