



SAW Components

SAW filter

Radiolink

Series/type:	B5148
Ordering code:	B39192B5148U410
Date:	February 03, 2012
Version:	2.0



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B5148

SAW filter

1900.00 MHz

Data sheet



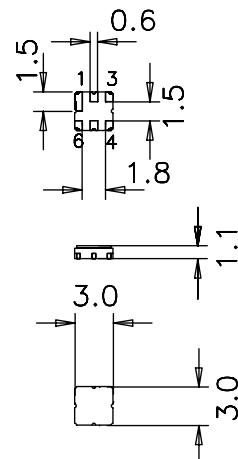
Application

- RF filter for Radiolink-MPR
- Unbalanced to Unbalanced operation
- Low amplitude ripple
- Usable passband of 35MHz
- No matching required for operation at 50Ω



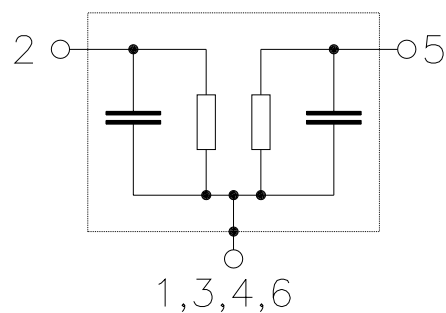
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Ceramic Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitive Level 1
- Filter surface passivated



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Case grounded





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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.	
Center frequency	f_C	—	1900.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
1882.5 ... 1917.5 MHz		—	2.6	3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1882.5 ... 1917.5 MHz		—	0.6	1.0	dB
Group delay ripple (p-p)	$\Delta\tau$				
1882.5 ... 1917.5 MHz		—	5	16	ns
Return loss					
Input 1882.5 ... 1917.5 MHz		10	12	—	dB
Output 1882.5 ... 1917.5 MHz		10	12	—	dB
Attenuation	α				
1.0 ... 1760.0 MHz		35	47	—	dB
2040.0 ... 3000.0 MHz		35	45	—	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 at				10,000hrs, Continuous wave +85°C
1882.5 ... 1917.5	P _{IN}	10	dBm	

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



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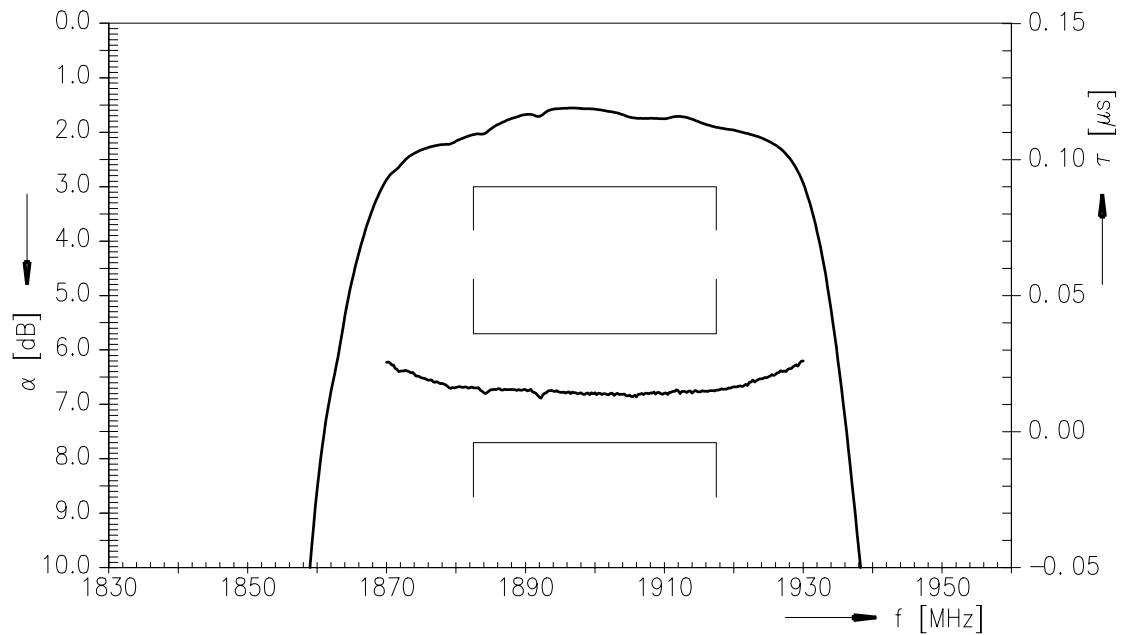
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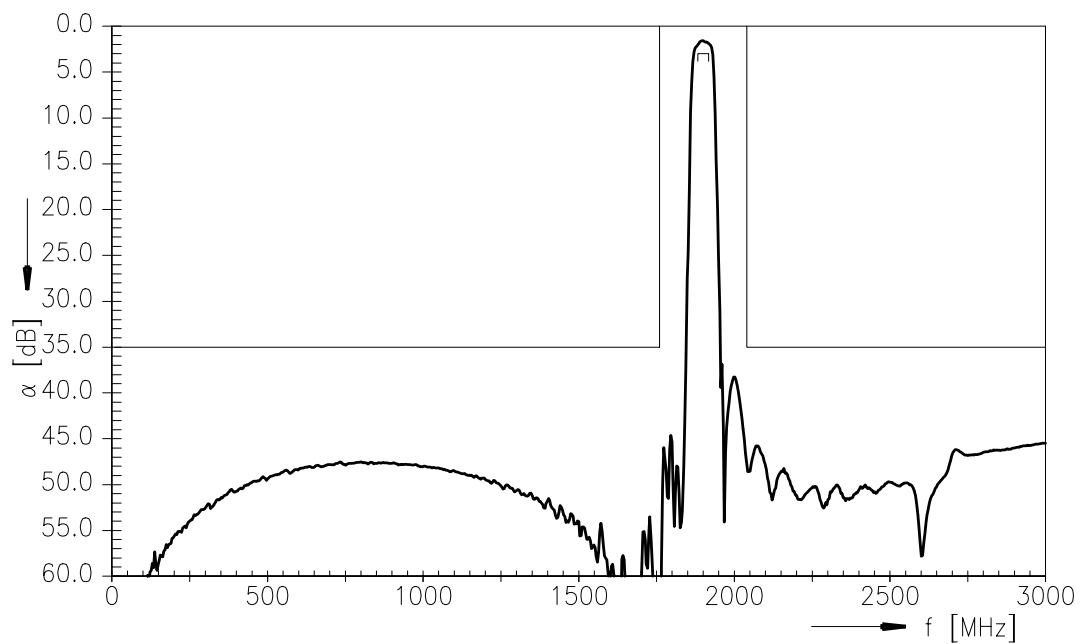
Data sheet



Transfer function



Transfer function (wideband)



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



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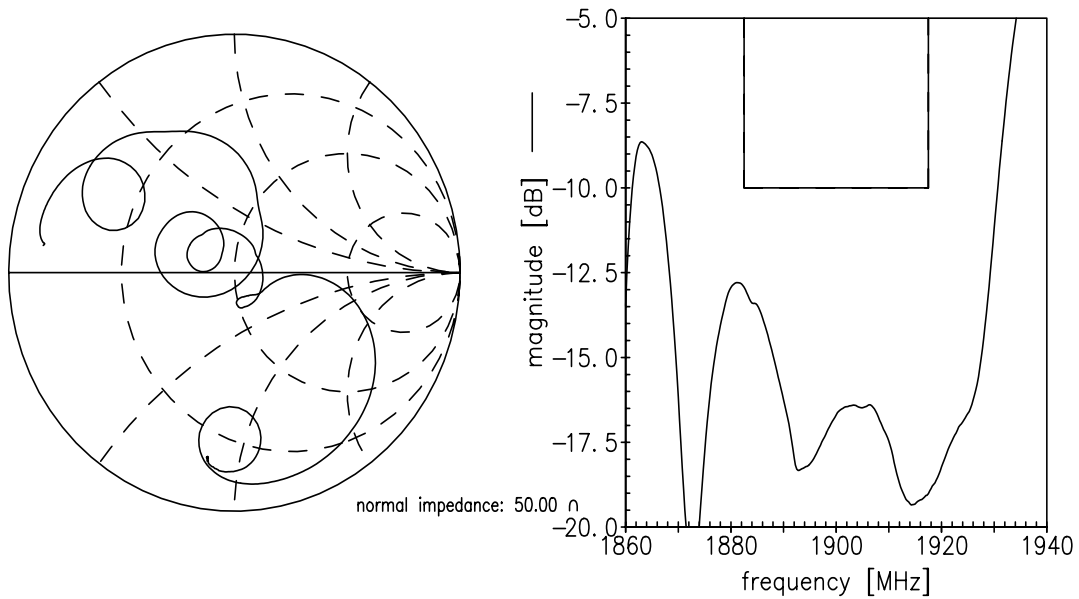
1900.00 MHz

Data sheet

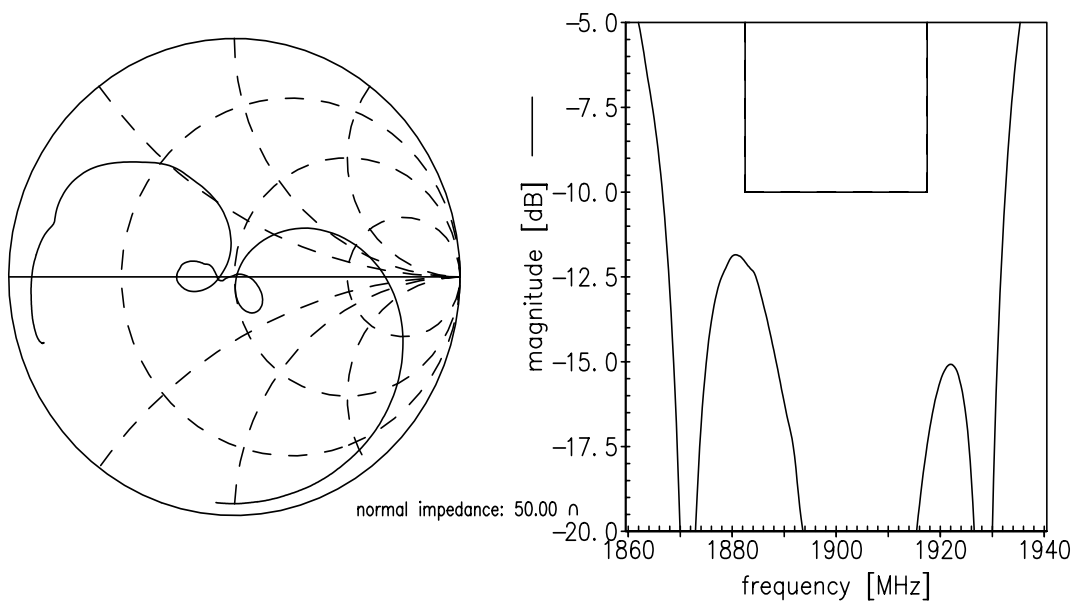


Smith charts

S_{11} function



S_{22} function



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Data sheet

**References**

Type	B5148
Ordering code	B39192B5148U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5148_NB.s2p B5148_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."
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

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