



SAW Components

SAW RF filter

Short range devices

Series/type:	B4154
Ordering code:	B39202B4154U510
Date:	January 29, 2009
Version:	2.1



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B4154

SAW RF filter

1960.0 MHz

Data sheet



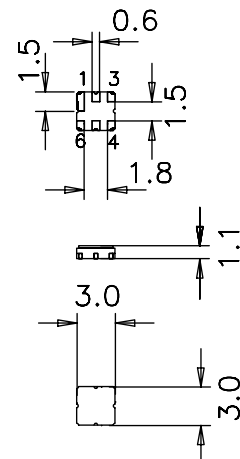
Application

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Unbalanced and balanced operation possible



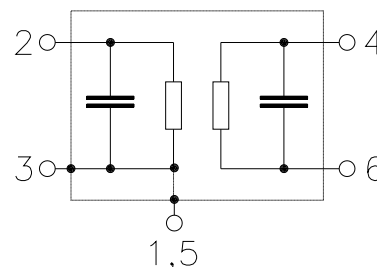
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration¹⁾

- 2 Input, unbalanced
- 4, 6 Output, balanced
- 1, 3, 5 Ground, to be grounded



1) The recommended pin configuration usually offers best suppression of electrical crosstalk. The filter characteristics refer to this configuration.



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Characteristics

Temperature range for specification:	$T_A = -45\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 50\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1960.00	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	3.6	5.0 ¹⁾	dB
	1930.00 ... 1990.00 MHz				
Amplitude ripple (p-p)		—	0.9	2.4 ²⁾	dB
	1930.00 ... 1990.00 MHz				
Attenuation	α				
	0.00 ... 1000.00 MHz	50	56	—	dB
	1000.00 ... 1830.00 MHz	40	50	—	dB
	1830.00 ... 1850.00 MHz	30	50	—	dB
	1850.00 ... 1900.00 MHz	10	19	—	dB
	1900.00 ... 1910.00 MHz	8	16	—	dB
	2020.00 ... 2060.00 MHz	10	17	—	dB
	2060.00 ... 2200.00 MHz	25	32	—	dB
	2200.00 ... 2260.00 MHz	40	47	—	dB
	2260.00 ... 4000.00 MHz	25	42	—	dB
	4000.00 ... 4500.00 MHz	20	33	—	dB
	4500.00 ... 6000.00 MHz	15	30	—	dB

1) $-30\text{ °C to }+85\text{ °C}$: 4.5 dB

2) $-30\text{ °C to }+85\text{ °C}$: 1.8 dB

Maximum ratings

Operable temperature range	T_A	$-45/+125$	°C	source and load impedance 50 Ω peak of TDMA signal, duty cycle 1 : 3
Storage temperature range	T_{stg}	$-45/+125$	°C	
DC voltage	V_{DC}	6	V	
Input power max.	P_{IN}	10	dBm	



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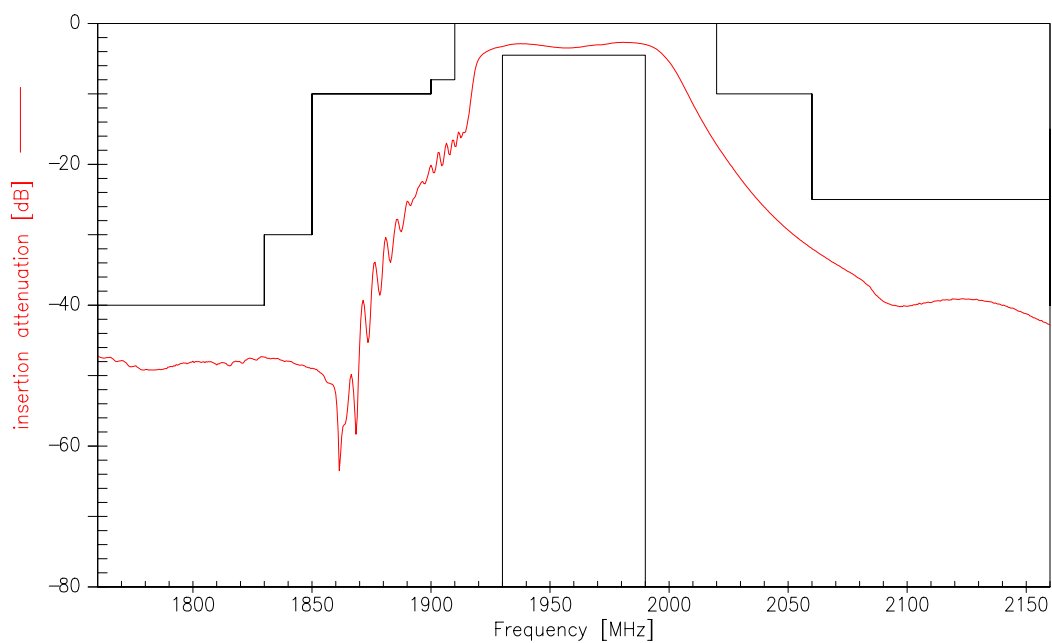
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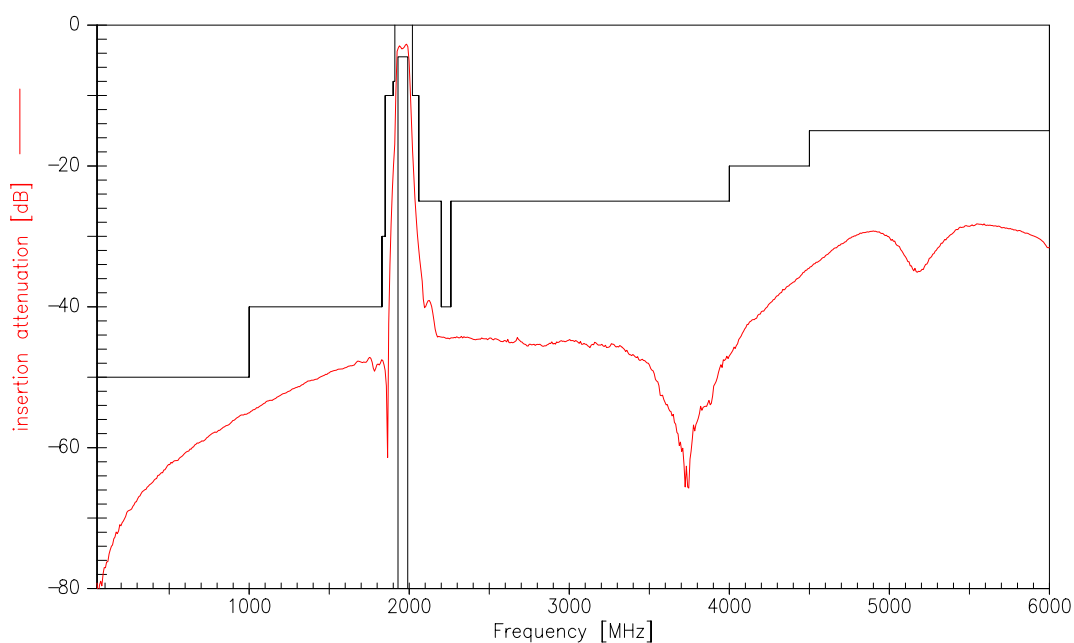
Data sheet



Transfer function (three port measurement)



Transfer function (wideband)





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Data sheet	SMD

References

Type	B4154
Ordering code	B39202B4154U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8089-Z000
Date codes	L_1126
S-parameters	B4154_NB.s2p B4154_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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