



SAW Components

SAW RF filter

GPS

Series/type:	B4050
Ordering code:	B39162B4050U510
Date:	January 29, 2009
Version:	2.1



SAW Components

B4050

SAW RF filter

1575.42 MHz

Data sheet



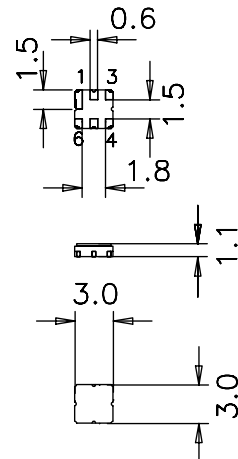
Application

- Low-loss RF filter for GPS application
- Usable passband 2.4MHz
- Low insertion attenuation, low amplitude ripple
- Unbalanced to balanced operation



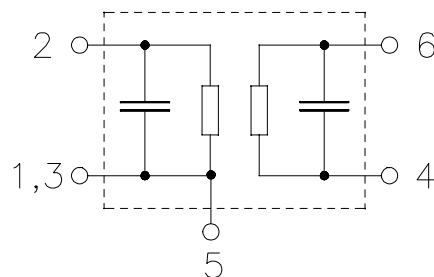
Features

- 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 configuration

- 2 Input, unbalanced
- 4, 6 Output, balanced
- 1, 3, 5 Case ground (to be 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: $Z_L = 50\Omega\text{ bal.}$

		min.	typ.	max.	
Nominal frequency	f_N	—	1575.42	—	MHz
Maximum insertion attenuation	α_{\max}	—	3.3	3.8	dB
1574.22 ... 1576.62 MHz					
Amplitude ripple in passband (p-p)	$\Delta\alpha$	—	0.3	1.0	dB
1574.22 ... 1576.62 MHz					
Attenuation	α				
0.00 ... 1425.00 MHz		50	60	—	dB
1425.00 ... 1525.00 MHz		37	50	—	dB
1525.00 ... 1535.42 MHz		30	44	—	dB
1615.42 ... 1625.00 MHz		20	44	—	dB
1625.00 ... 1675.00 MHz		37	46	—	dB
1675.00 ... 1850.00 MHz		40	60	—	dB
1850.00 ... 1910.00 MHz		50	60	—	dB
1910.00 ... 2500.00 MHz		40	55	—	dB
2500.00 ... 4000.00 MHz		20	52	—	dB

Maximum ratings

Operable temperature range	T	$-45/+125$	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	$-45/+125$	$^{\circ}\text{C}$	
DC voltage	V_{DC}	6	V	
Source power	P_S	0	dBm	source impedance 50 Ω

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



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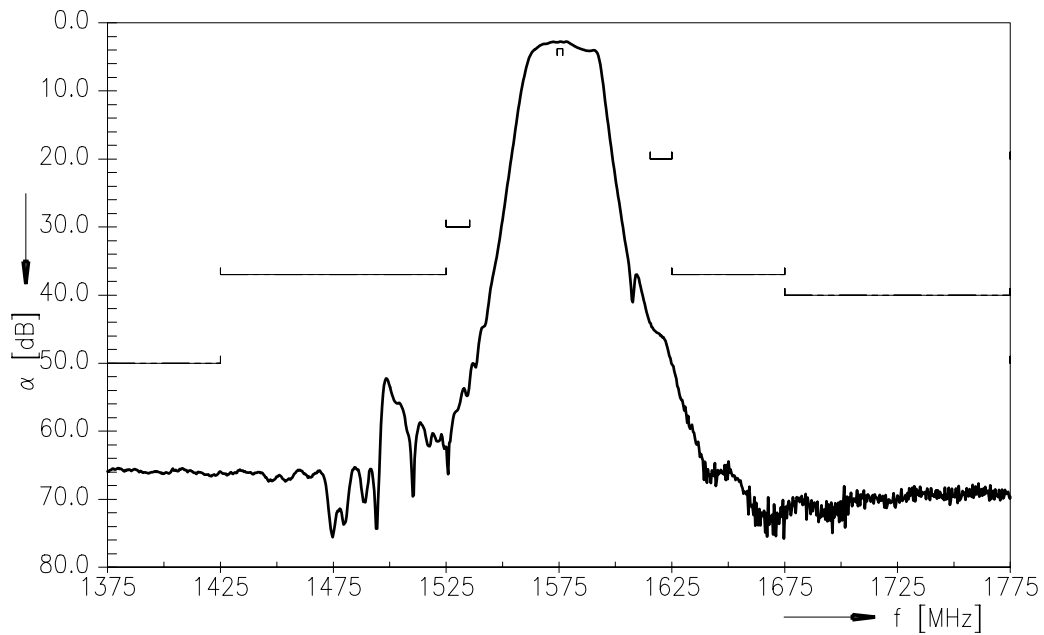
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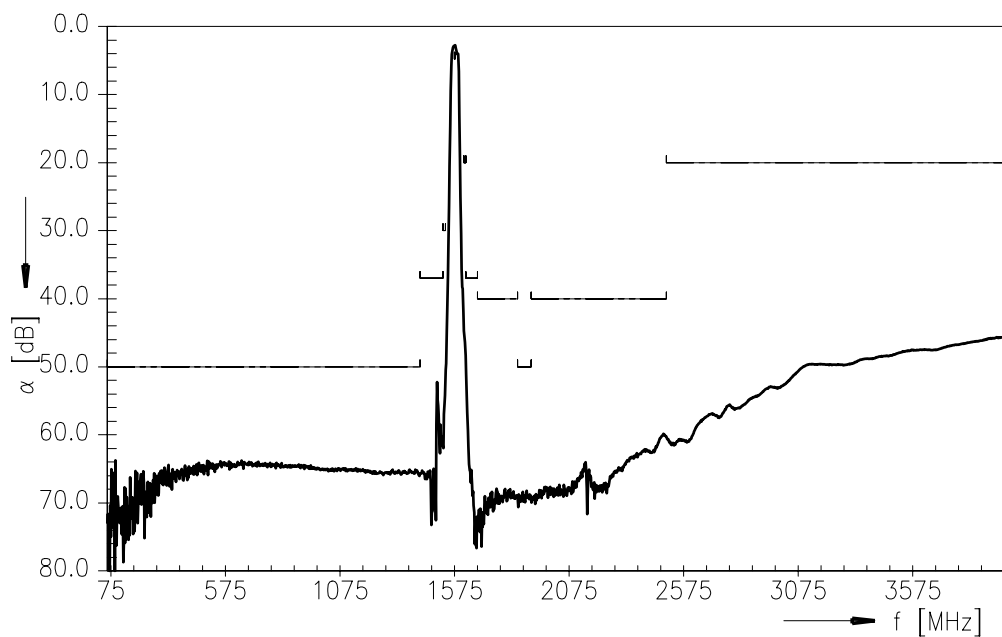
Data sheet



Transfer function (pass band)



Transfer function (wideband)



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**References**

Type	B4050
Ordering code	B39162B4050U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B4050_NB.s2p B4050_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 maxi- mum 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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Please read *cautions and warnings and important notes* at the end of this document.



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