



## **SAW Components**

**SAW RF filter**

GPS

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



SAW Components

B4050

SAW RF filter

1575.42 MHz

Data sheet

**SMD**

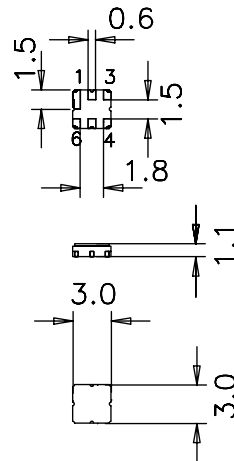
### Application

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



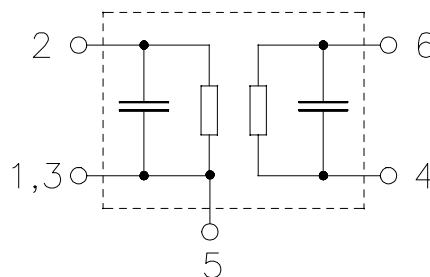
### Features

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- 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)



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



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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.	
<b>Nominal frequency</b>	$f_N$	—	1575.42	—	MHz
<b>Maximum insertion attenuation</b> 1574.22 ... 1576.62 MHz	$\alpha_{\max}$	—	3.3	3.8	dB
<b>Amplitude ripple in passband (p-p)</b> 1574.22 ... 1576.62 MHz	$\Delta\alpha$	—	0.3	1.0	dB
<b>Attenuation</b>	$\alpha$				
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	°C	
Storage temperature range	$T_{\text{stg}}$	-45/+125	°C	
DC voltage	$V_{\text{DC}}$	6	V	
Source power	$P_S$	0	dBm	source impedance 50 $\Omega$

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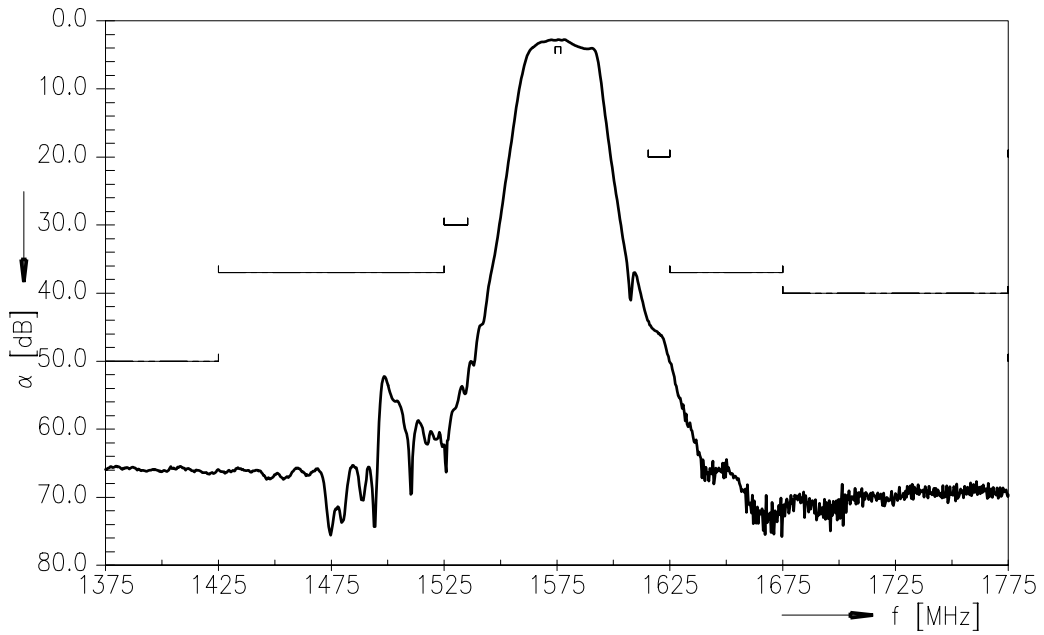
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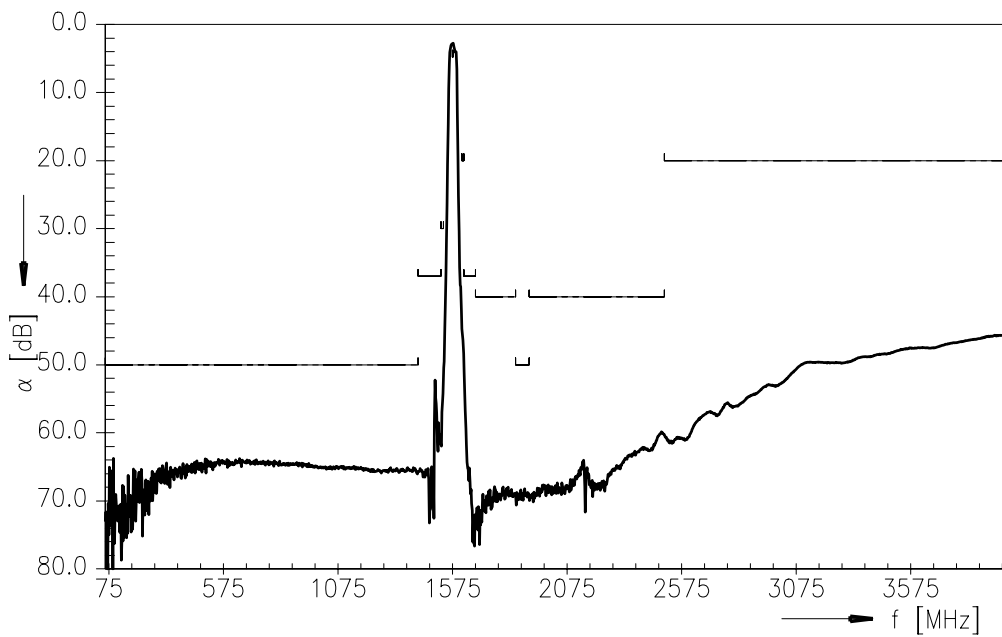
Data sheet



Transfer function (pass band)



Transfer function (wideband)



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



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Data sheet



## References

<b>Type</b>	B4050
<b>Ordering code</b>	B39162B4050U510
<b>Marking and package</b>	C61157-A7-A68
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B4050_NB.s2p B4050_WB.s2p See file header for port/pin assignment table.
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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Please read *cautions and warnings and important notes* at the end of this document.



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