SAW Components

SAW RF filter

GPS

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

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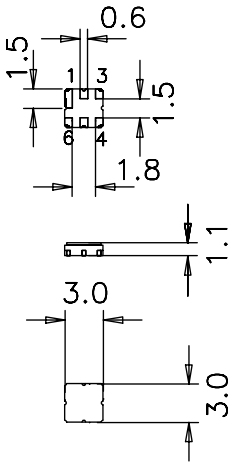
Application

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

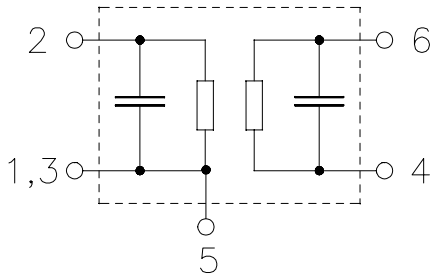
Features

- Package size 3.0 x 3.0 x 1.1 mm^3
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

- 2 Input, unbalanced
- 4, 6 Output, balanced
- 1, 3, 5 Case ground (to be grounded)



Data sheet SMD

Characteristics

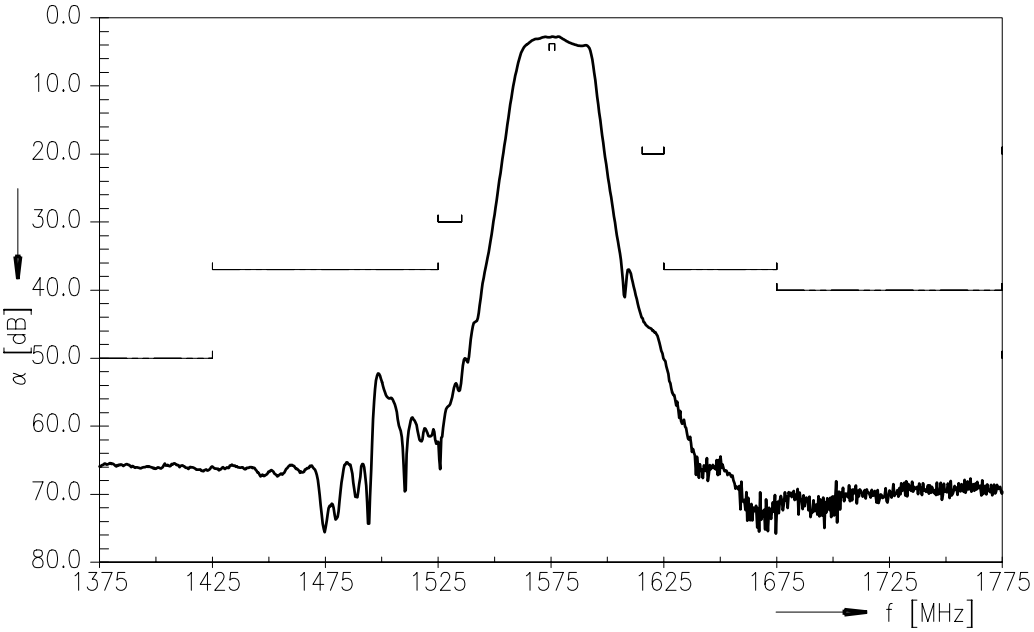
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50Ω
Terminating load impedance: Z_L = 50 Ω bal.

		min.	typ.	max.	
Nominal frequency	f_N	—	1575.42	—	MHz
Maximum insertion attenuation	α_{max}				
1574.22 ... 1576.62 MHz		—	3.3	3.8	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
1574.22 ... 1576.62 MHz		—	0.3	1.0	dB
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

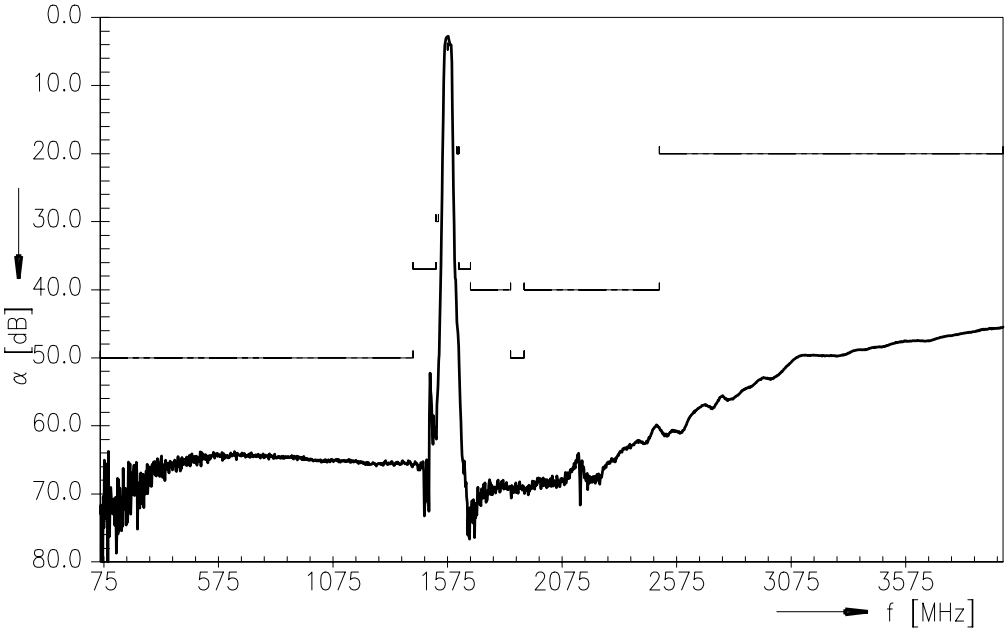
Maximum ratings

Operable temperature range	T	–45/+125	˚C	
Storage temperature range	T_{stg}	–45/+125	˚C	
DC voltage	V_{DC}	6	V	
Source power	P_S	0	dBm	source impedance 50 Ω

Transfer function (pass band)



Transfer function (wideband)



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 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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