SAW Components

SAW RF filter

GPS

Series/type:	**B3522**
Ordering code:	**B39162B3522U410**
Date:	November 10, 2009
Version:	2.4

EPCOS

SAW Components	B3522
SAW RF filter	**1575.42 MHz**

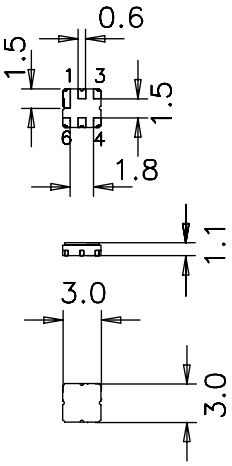
Data sheet SMD

Application

- Low-loss RF filter for GPS application
- No matching network required for operation at 50 Ω

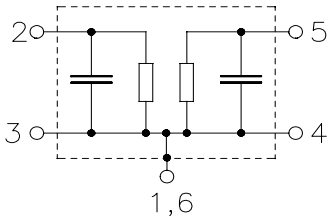
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- 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
5	Output
1,3,4,6	Ground



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Data sheet SMD

Characteristics

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

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{max}				
1574.397 ... 1576.443 MHz		—	1.6	2.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1574.397 ... 1576.443 MHz		—	0.2	0.8	dB
Input VSWR					
1574.397 ... 1576.443 MHz		—	1.4	1.8	
Output VSWR					
1574.397 ... 1576.443 MHz		—	1.3	1.8	
Attenuation	α				
10.00 ... 1450.00 MHz		40	43	—	dB
1450.00 ... 1500.00 MHz		35	45	—	dB
1625.00 ... 1640.00 MHz		35	50	—	dB
1640.00 ... 1800.00 MHz		44	47	—	dB
1800.00 ... 2000.00 MHz		42	44	—	dB
2000.00 ... 3000.00 MHz		30	35	—	dB

Characteristics

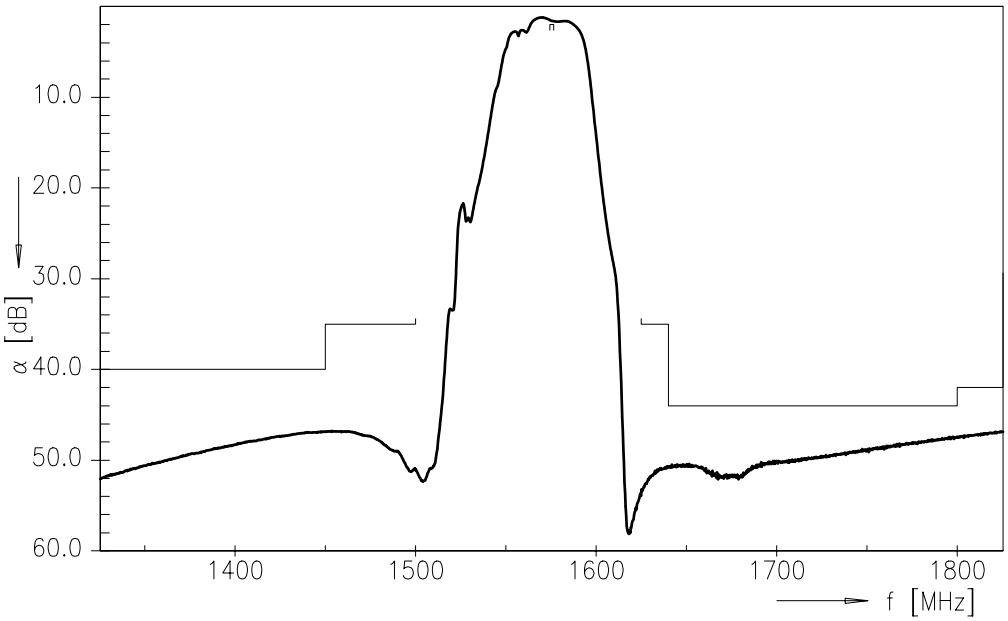
Temperature range for specification: T = –40 ˚C to+105 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{max}				
1574.397 ... 1576.443 MHz		—	1.6	2.2	dB
Amplitude ripple (p-p)	Δα				
1574.397 ... 1576.443 MHz		—	0.2	1.0	dB
Input VSWR					
1574.397 ... 1576.443 MHz		—	1.4	1.9	
Output VSWR					
1574.397 ... 1576.443 MHz		—	1.3	1.9	
Attenuation	α				
10.00 ... 1450.00 MHz		40	43	—	dB
1450.00 ... 1500.00 MHz		33	45	—	dB
1625.00 ... 1640.00 MHz		35	50	—	dB
1640.00 ... 1800.00 MHz		44	47	—	dB
1800.00 ... 2000.00 MHz		42	44	—	dB
2000.00 ... 3000.00 MHz		30	35	—	dB

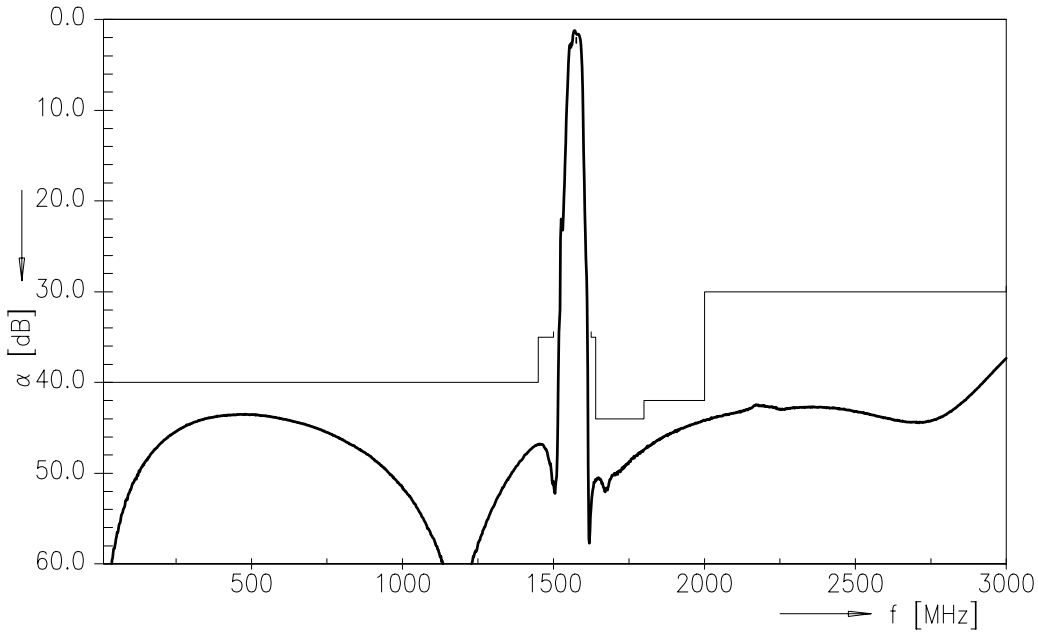
Maximum ratings

Operable temperature range	T	–40/+125	˚C	
Storage temperature range	T_{stg}	–40/+125	˚C	
DC voltage	V_{DC}	6	V	
Source power	P_S	10	dBm	source impedance 50 Ω
		20	dBm	824 MHz to 915 MHz, 1710 MHz to 1785 MHz, 1850 MHz to 1910 MHz

Transfer function



Transfer function (wideband)



References

Type	B3522
Ordering code	B39162B3522U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3522_NB.s2p B3522_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."

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