SAW Components

SAW RF filter

Digital radio

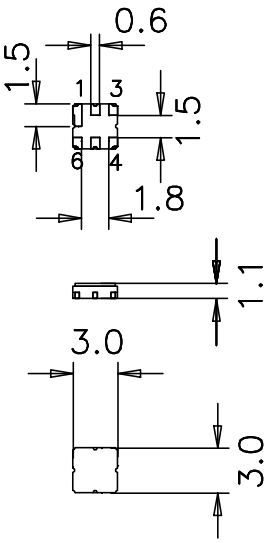
Series/type:	**B3404**
Ordering code:	**B39232-B3404-U410**
Date:	April 08, 2014
Version:	2.0

Application

- Low-loss RF filter for digital radio
- Unbalanced to unbalanced operation
- Low amplitude ripple
- Usable passband 25 MHz
- No matching required for operation at 50 Ω

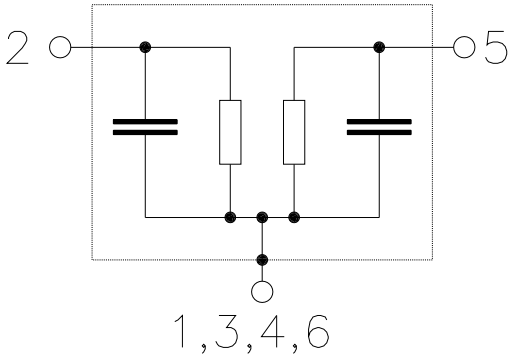
Features

- 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
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel 1
- AEC-Q200 qualified component family
- Filter surface passivated



Pin configuration

2	Input
5	Output
1,3,4,6	To be grounded



Data sheet SMD

Characteristics

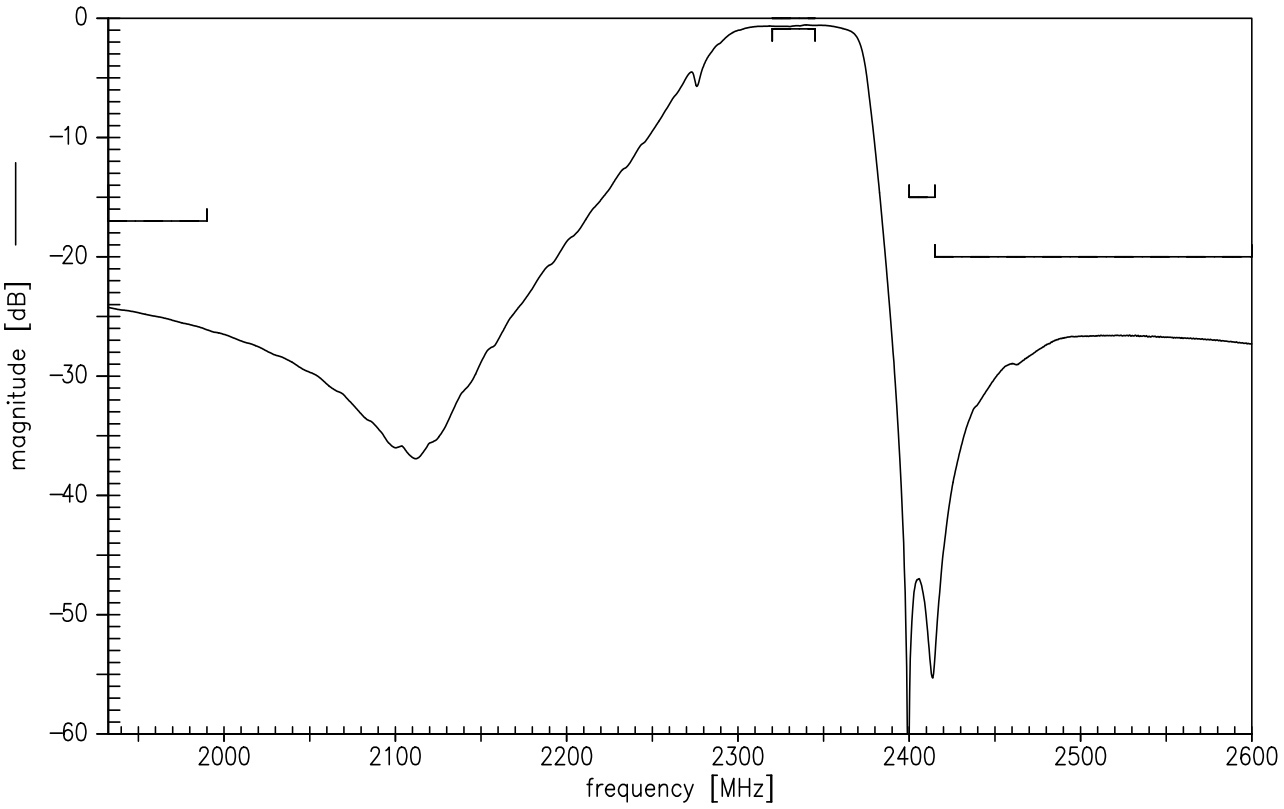
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		B3404			
		min.	**typ. @ 25 ˚C**	**max.**	
Nominal frequency	f_N	—	2332.5	—	MHz
Maximum insertion attenuation	α_{max}				
2320.0 ... 2345.0 MHz		—	0.6	0.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2320.0 ... 2345.0 MHz		—	0.2	0.5	dB
Input VSWR					
2320.0 ... 2345.0 MHz		—	1.6	2.0:1	
Output VSWR					
2320.0 ... 2345.0 MHz		—	1.6	2.0:1	
Attenuation	α				
824.0 ... 894.0 MHz		15	20	—	dB
1710.0 ... 1755.0 MHz		16	21	—	dB
1850.0 ... 1990.0 MHz		17	22	—	dB
2400.0 ... 2415.0 MHz		15	35	—	dB
2415.0 ... 2600.0 MHz		20	26	—	dB

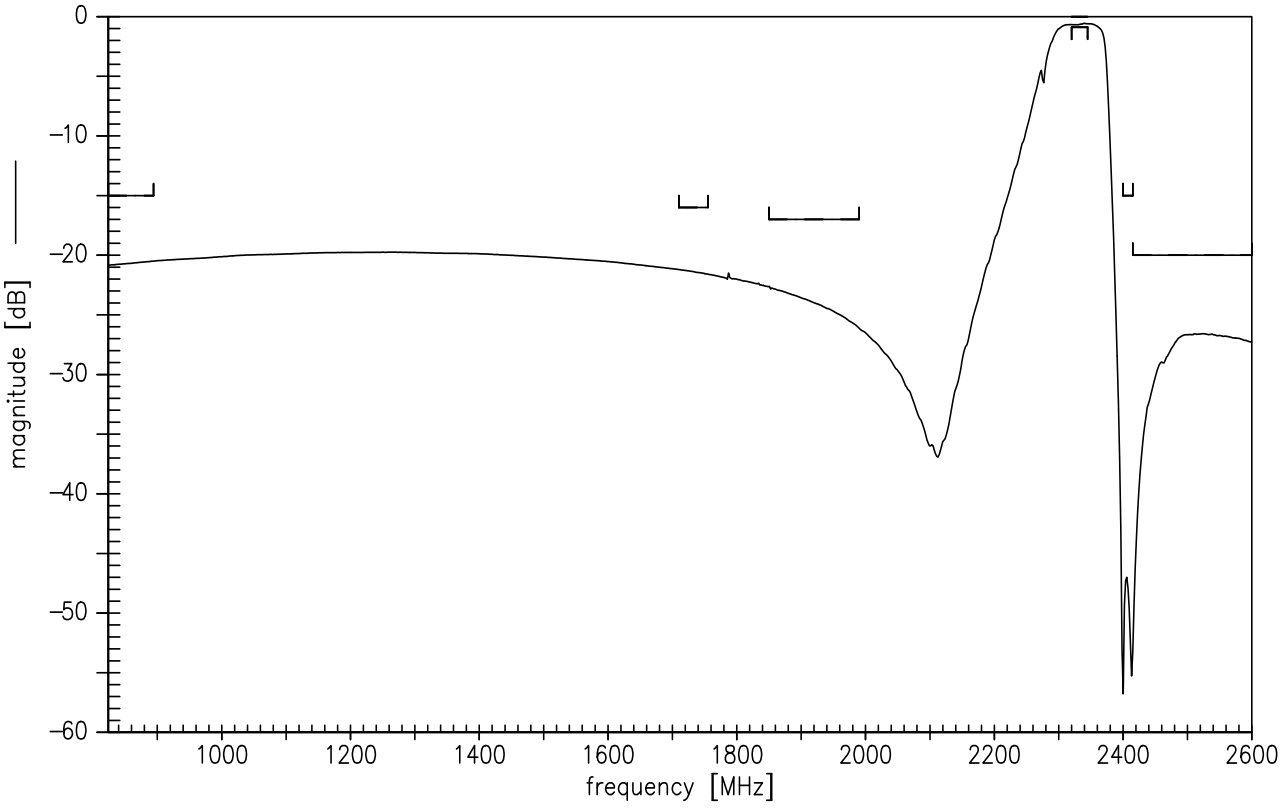
Maximum ratings

Operable temperature range	T	–40/+105	˚C	
Storage temperature range	T_{stg}	–40/+125	˚C	
DC voltage	V_{DC}	5	V	
Input power				
2320.0 ... 2345.0 MHz	P_{IN}	18	dBm	cw, 100000 h, 85˚C

Transfer function (narrow band)

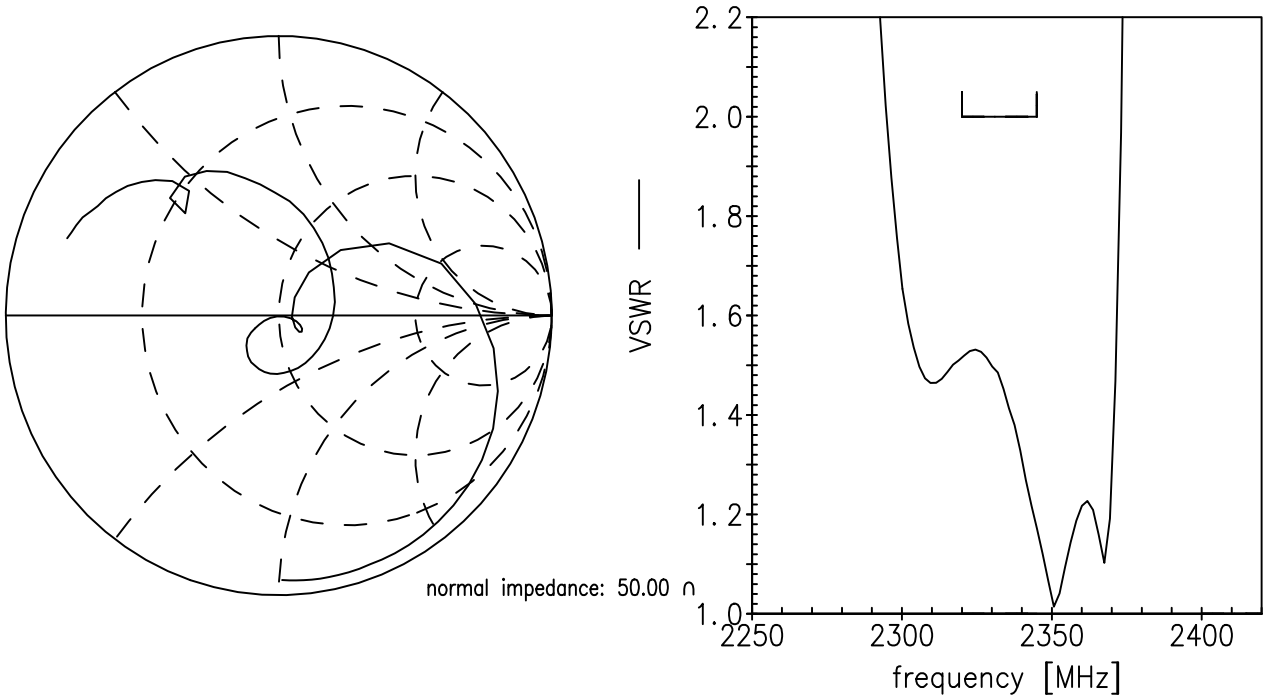


Transfer function (wide band)

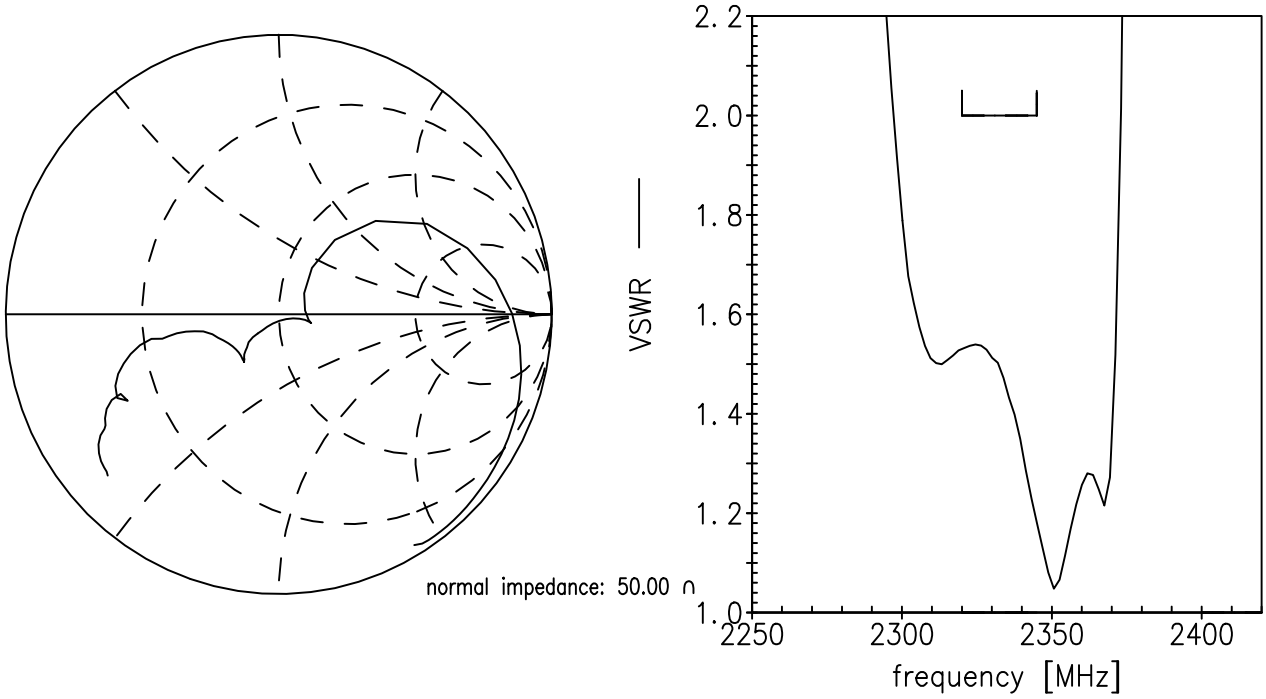


Smith charts

S_{11} function



S_{22} function



References

Type	B3404
Ordering code	B39232-B3404-U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3404_NB.s2p B3404_WB.s2p See file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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