



SAW Components

SAW filter

UMTS RF Filter

Series/type:	B3668
Ordering code:	B39202B3668U410
Date:	June 06, 2012
Version:	2.0

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B3668

SAW filter

1950.0 MHz

Data Sheet



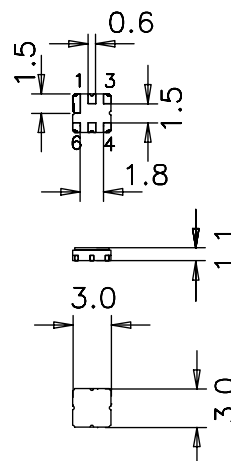
Application

- Low-loss RF filter for UMTS system
- Unbalanced to Unbalanced operation
- Usable passband 60MHz
- No matching network required for operation at 50 Ω



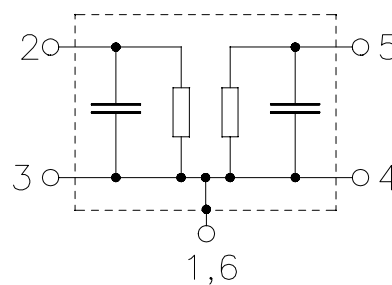
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- RoHS compatible
- Approximate weight 0.037 g
- Ceramic Package for Surface Mounted Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitive Level 1
- Filter surface passivated



Pin configuration

- 2 Input
- 1,3 Input ground
- 5 Output
- 4,6 Output grounded



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Characteristics

Temperature range for specification: $T = -30\text{ }^{\circ}\text{C}$ to $+95\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

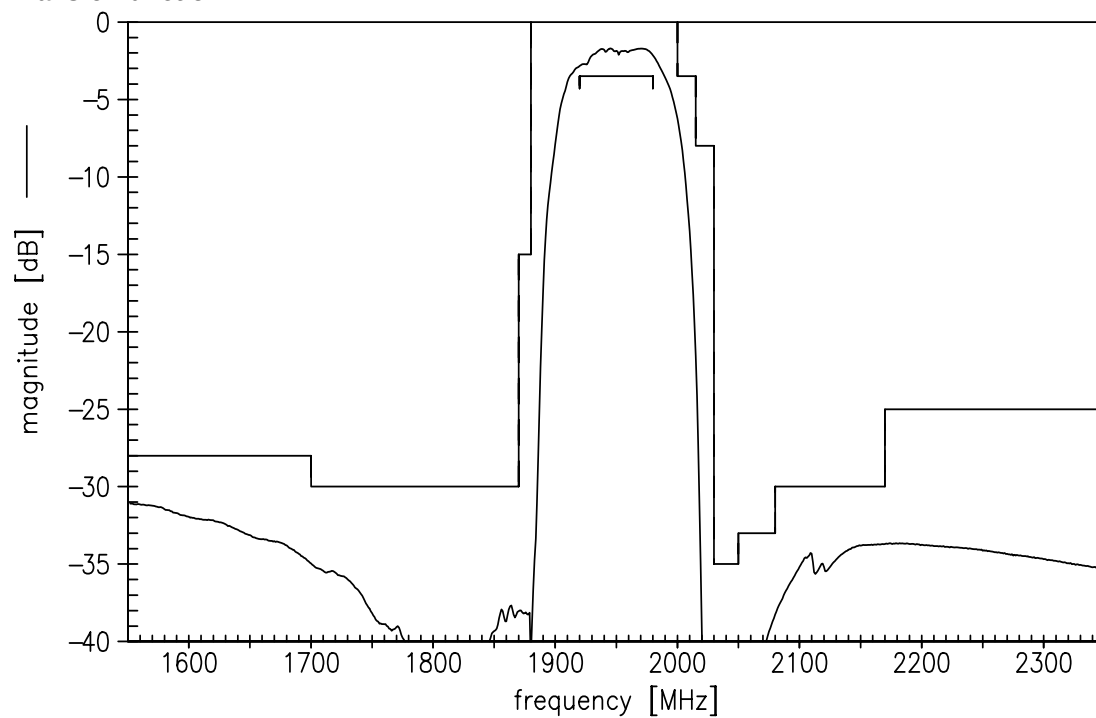
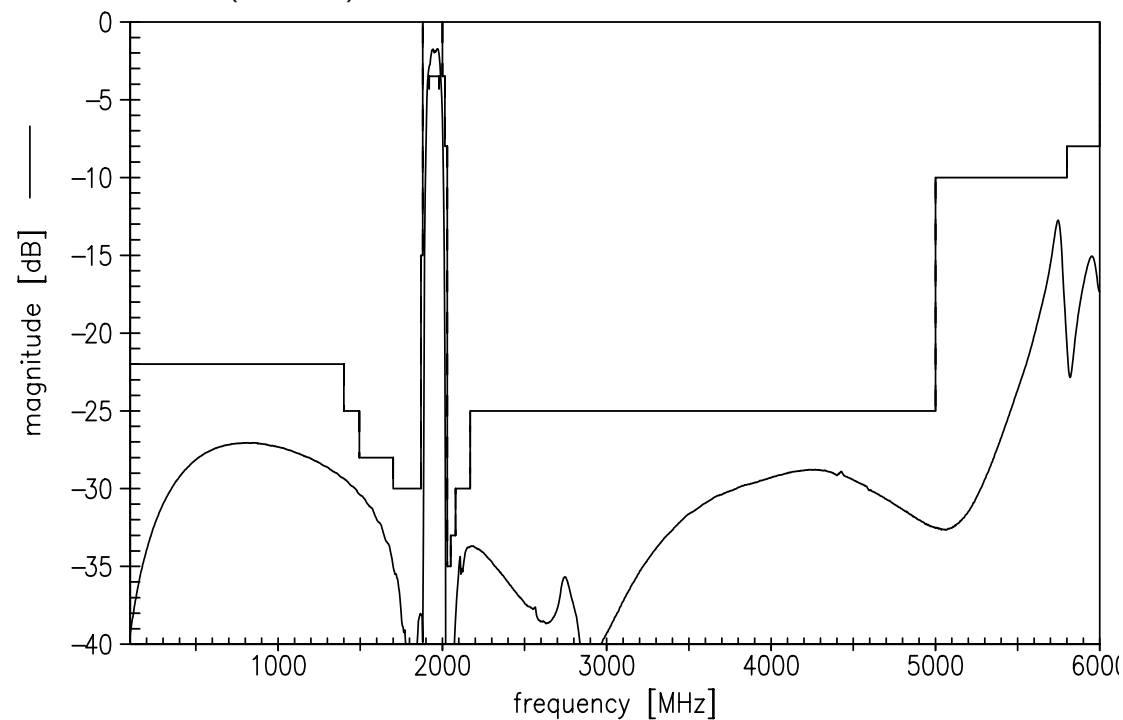
		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1950.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
1920.0 ... 1980.0 MHz		—	3.0	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1920.0 ... 1980.0 MHz		—	1.5	2.1	dB
Return loss					
1805.0 ... 1880.0 MHz		8.0	10.0	—	dB
Attenuation	α				
0.0 ... 1400.0 MHz		22.0	25.0	—	dB
1400.0 ... 1495.0 MHz		25.0	28.0	—	dB
1495.0 ... 1700.0 MHz		28.0	31.0	—	dB
1700.0 ... 1870.0 MHz		30.0	34.0	—	dB
1870.0 ... 1880.0 MHz		20.0 ¹⁾	30.0	—	dB
2000.0 ... 2015.0 MHz		3.5	6.0	—	dB
2015.0 ... 2030.0 MHz		8.0	20.0	—	dB
2030.0 ... 2050.0 MHz		35.0	45.0	—	dB
2050.0 ... 2080.0 MHz		33.0	37.0	—	dB
2080.0 ... 2170.0 MHz		30.0	34.0	—	dB
2170.0 ... 5000.0 MHz		25.0	30.0	—	dB
5000.0 ... 5800.0 MHz		10.0	12.0	—	dB
5800.0 ... 6000.0 MHz		8.0	10.0	—	dB

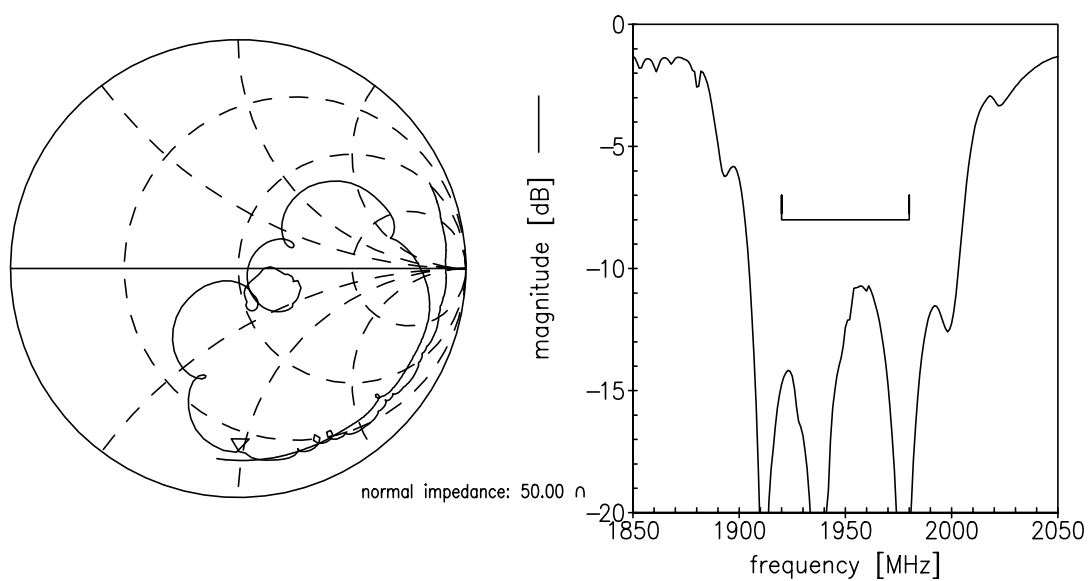
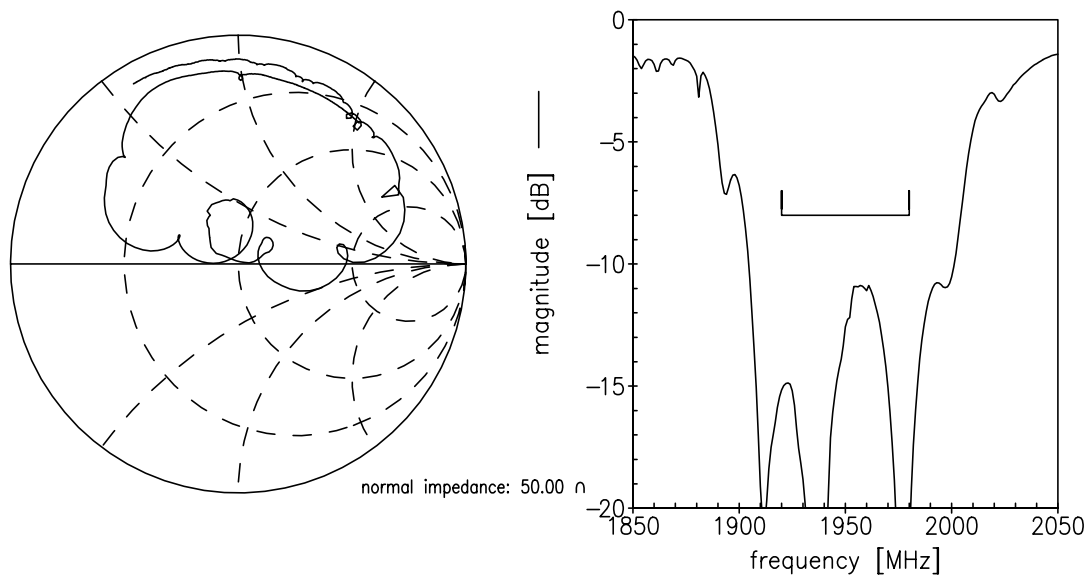
¹⁾ min. 15dB ($T > 45\text{ }^{\circ}\text{C}$)


Maximum ratings

Operable temperature range	T	−30/+95	°C	
Storage temperature range	T _{stg}	−30/+95	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at				
1920.0 ... 1980.0 MHz	P _{IN}	25.0	dBm	continuous wave, 2hrs, 85°C
1920.0 ... 1980.0 MHz	P _{IN}	19.5	dBm	continuous wave, 1000hrs, 85°C
1920.0 ... 1980.0 MHz	P _{IN}	14.0	dBm	continuous wave, 100000hrs, 85°C
1920.0 ... 1980.0 MHz	P _{IN}	24.0	dBm	continuous wave, 2hrs, 95°C
1920.0 ... 1980.0 MHz	P _{IN}	18.5	dBm	continuous wave, 1000hrs, 95°C
1920.0 ... 1980.0 MHz	P _{IN}	13.0	dBm	continuous wave, 100000hrs, 95°C

¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.

Transfer function

Transfer function (wideband)




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References

Type	B3668
Ordering code	B39202B3668U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3668_NB.s2p; B3668_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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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