



SAW Components

SAW Tx filter

W-CDMA IF

Series/type:	B3669
Ordering code:	B39212B3669U410
Date:	March 12, 2010
Version:	2.0



SAW Components

B3669

SAW Tx filter

2140.00 MHz

Data sheet



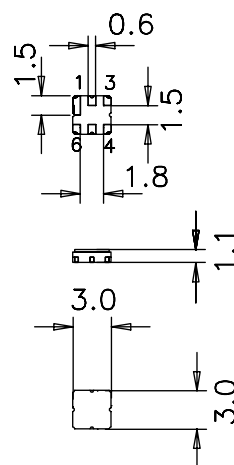
Application

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



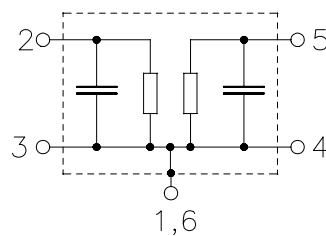
Features

- Package size 3.0x3.0x 1.1 mm³
- RoHS compatible
- Approximate weight 0.037 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Package code DCC6C



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 °C to +85 °C
Terminating source impedance:	Z _S = 50 Ω
Terminating load impedance:	Z _L = 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	2140,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
2110,0 ... 2170,0 MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2110,0 ... 2170,0 MHz		—	1,0	1,5	dB
Return loss					
2110,0 ... 2170,0 MHz		9,0	11,0	—	dB
Attenuation	α				
50,0 ... 1400,0 MHz		22,0	27,0	—	dB
1400,0 ... 1910,0 MHz		25,0	28,0	—	dB
1910,0 ... 1980,0 MHz		30,0	38,0	—	dB
2300,0 ... 3700,0 MHz		25,0	30,0	—	dB
3700,0 ... 5300,0 MHz		20,0	25,0	—	dB
5300,0 ... 5700,0 MHz		15,0	18,0	—	dB
Temperature coefficient of frequency	TC_f	—	-35	—	ppm/K



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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.	max.	
Nominal frequency	f_N	—	2140,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	3,0	3,5	dB
2110,0 ... 2170,0 MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,2	1,8	dB
2110,0 ... 2170,0 MHz		—	1,2	1,8	dB
Return loss		8,0	10,0	—	dB
2110,0 ... 2170,0 MHz		8,0	10,0	—	dB
Attenuation	α				
50,0 ... 1400,0 MHz		22,0	27,0	—	dB
1400,0 ... 1910,0 MHz		25,0	28,0	—	dB
1910,0 ... 1980,0 MHz		30,0	38,0	—	dB
2300,0 ... 3700,0 MHz		25,0	30,0	—	dB
3700,0 ... 5300,0 MHz		20,0	25,0	—	dB
5300,0 ... 5700,0 MHz		15,0	18,0	—	dB
Temperature coefficient of frequency	TC_f	—	-35	—	ppm/K



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Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 1 pulses
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	
Input power at 2010.00 MHz-2170.00MHz	P _{IN}	10	dBm	

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



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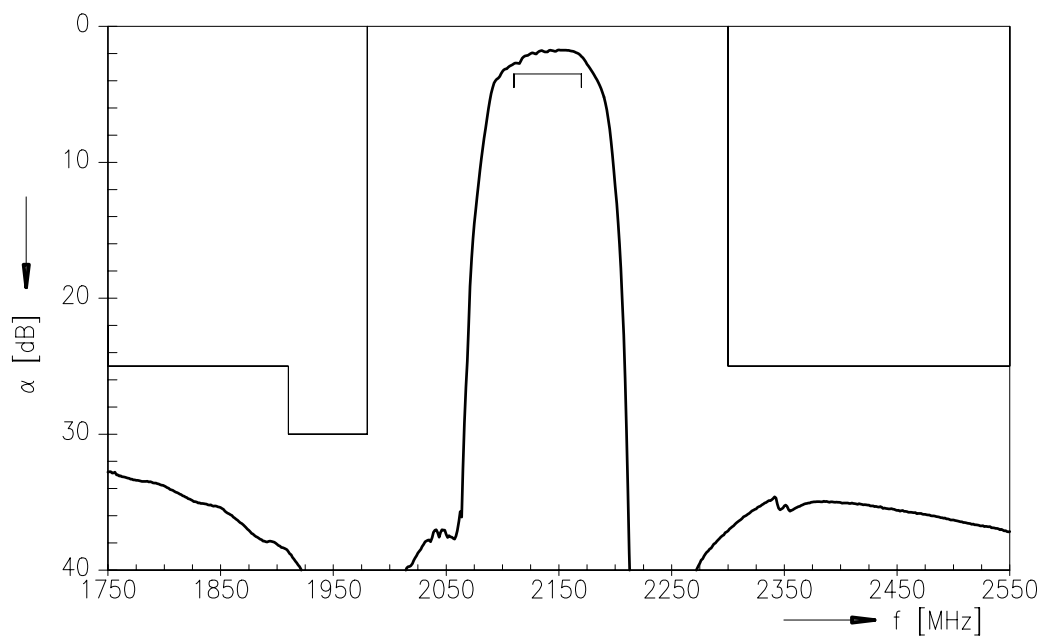
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2140.00 MHz

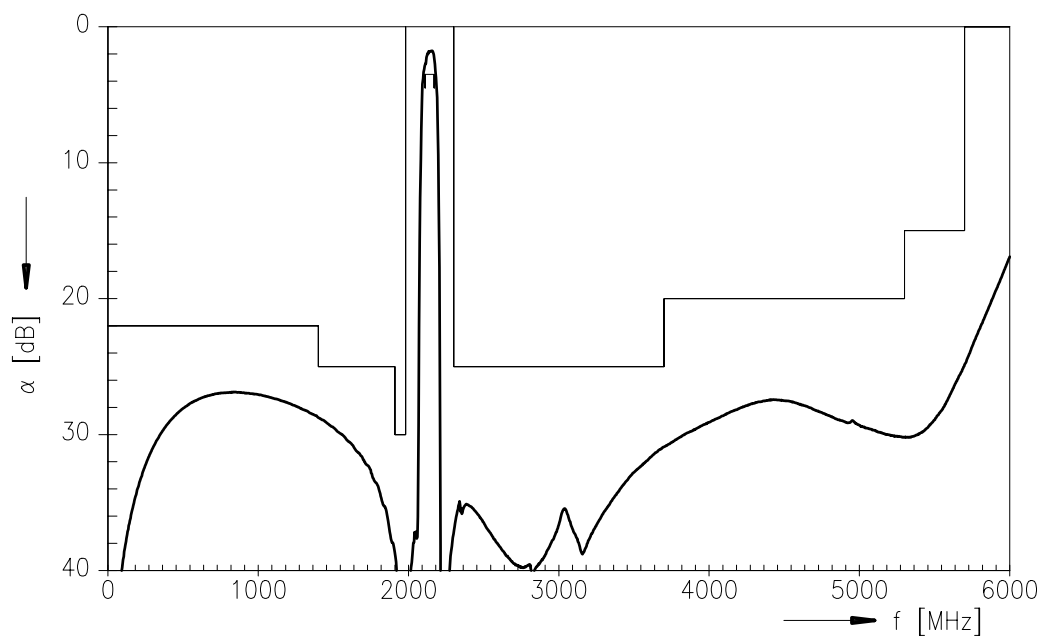
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Transfer function



Transfer function (wideband)





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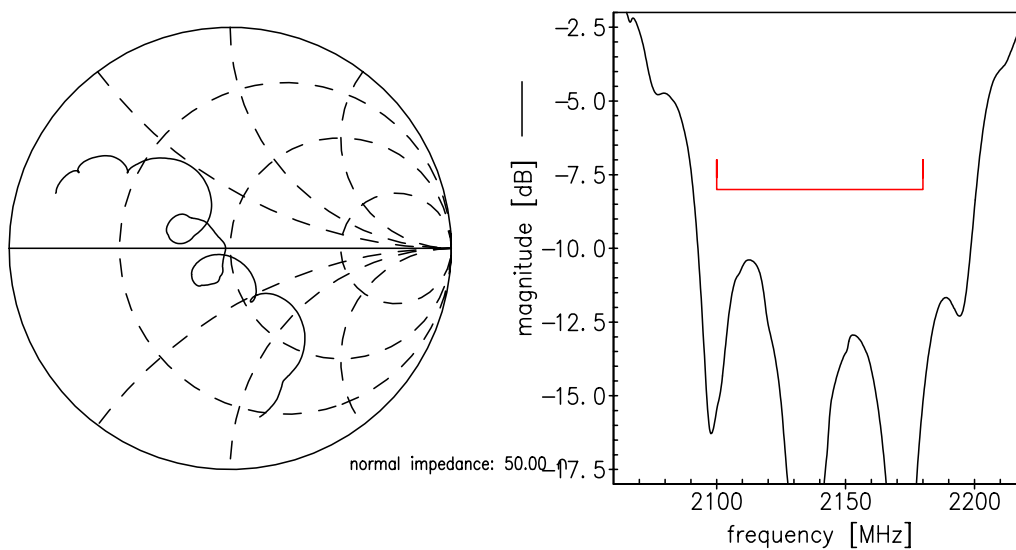
2140.00 MHz

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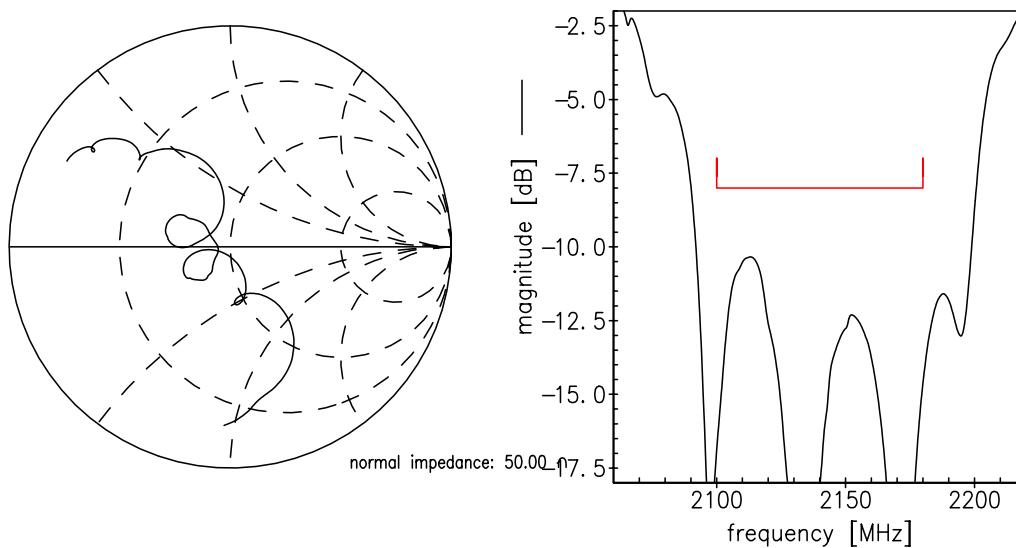


Smith charts

S_{11} function



S_{22} function





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References

Type	B3669
Ordering code	B39212B3669U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3669 NB.s2p, B3669 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 maxi- mum concentration values for certain hazardous substances in electrical and electronic equipment."

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