



SAW Components

SAW filter

W-CDMA

Series/type:	B7750
Ordering code:	B39212B7750C810
Date:	September 11, 2008
Version:	2.0



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B7750

SAW filter

2140.00 MHz

Data sheet



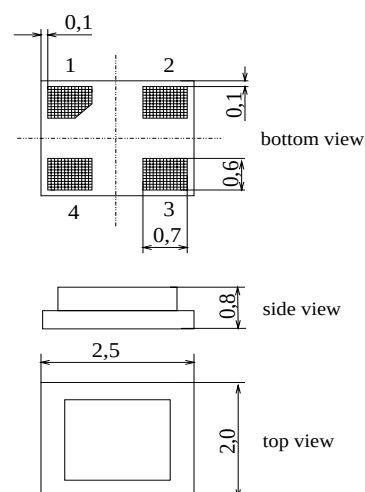
Application

- RF filter for mobile telephone UMTS systems, receive path
- Low insertion loss, low amplitude ripple
- Usable passband 60 MHz



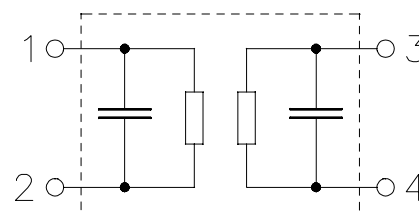
Features

- Package size 2.5 x 2.0 x 0.8 mm³
- Package code DCS4D
- RoHS compatible
- Approximate weight 0.012 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input
- 3 Output
- 2,4 Ground





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Characteristics

Temperature range for specification: $T = -20$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	2140.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
2110.0 ... 2170.0 MHz		—	2.6	2.8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2110.0 ... 2170.0 MHz		—	0.8	1.0	dB
Input VSWR					
2110.0 ... 2170.0 MHz		—	2.2	2.4	
Output VSWR					
2110.0 ... 2170.0 MHz		—	2.2	2.4	
Absolute Attenuation	α				
0.0 ... 1500.0 MHz		40	42	—	dB
1500.0 ... 1880.0 MHz		35	40	—	dB
1920.0 ... 1980.0 MHz		34	36	—	dB
2025.0 ... 2050.0 MHz		20	25	—	dB
2205.0 ... 2265.0 MHz		10	20	—	dB
2230.0 ... 2260.0 MHz		22	24	—	dB
2300.0 ... 2360.0 MHz		33	38	—	dB
2490.0 ... 2550.0 MHz		37	43	—	dB
2870.0 ... 2930.0 MHz		31	35	—	dB
4000.0 ... 6000.0 MHz		20	31	—	dB



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Maximum ratings

Operable temperature range	T	-20/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power max	P _{IN}	13	dBm	source and load impedance 50Ω

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



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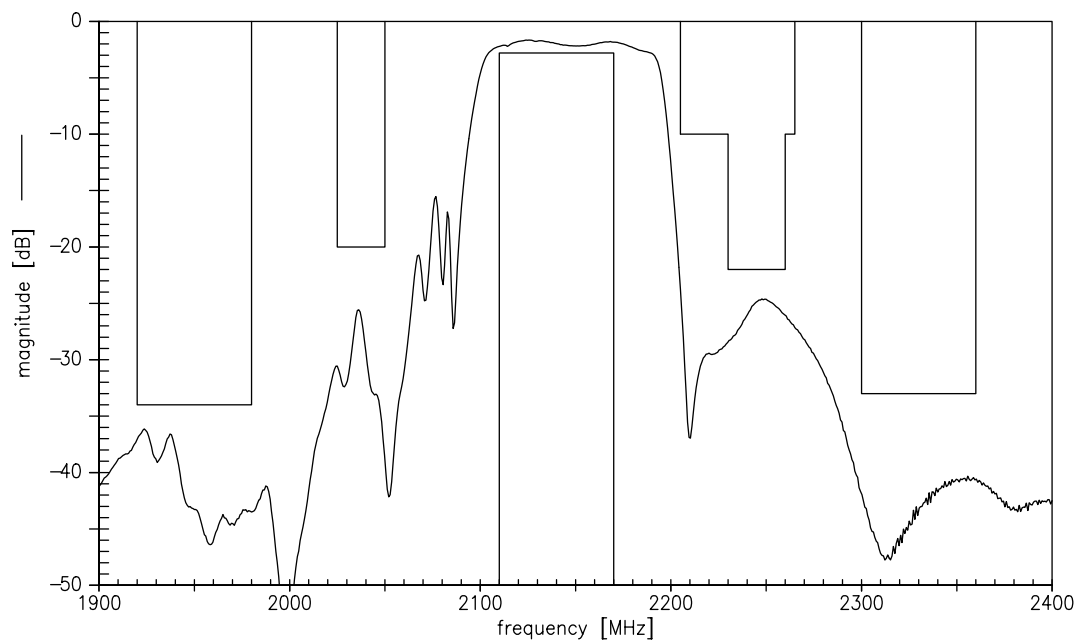
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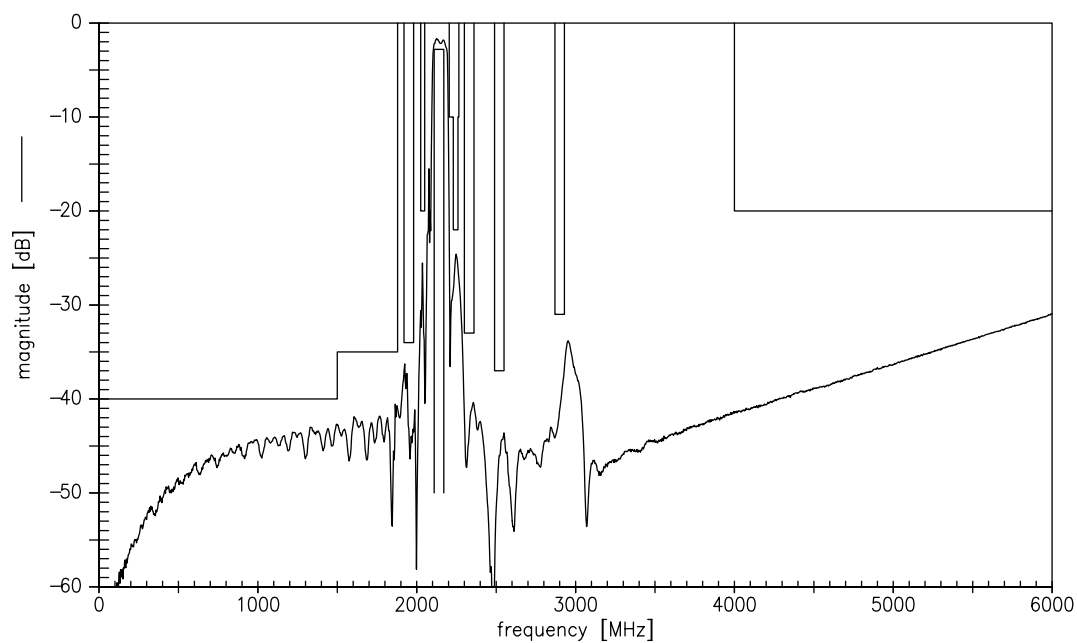
Data sheet



Transfer function



Transfer function (wideband)



Please read *cautions and warnings* and *important notes* at the end of this document.



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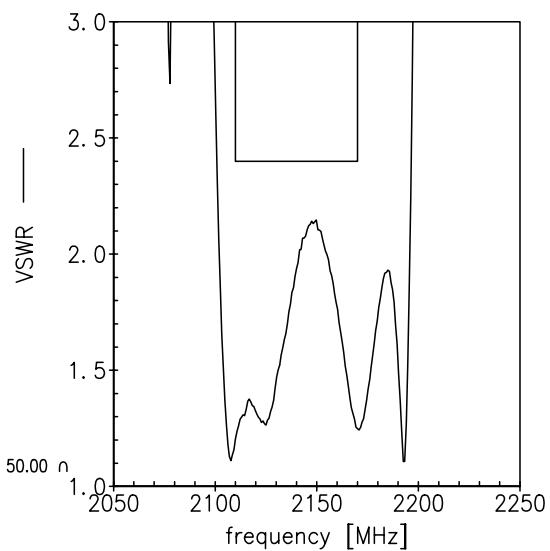
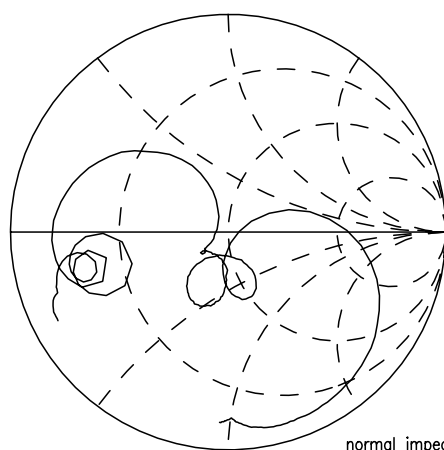
2140.00 MHz

Data sheet

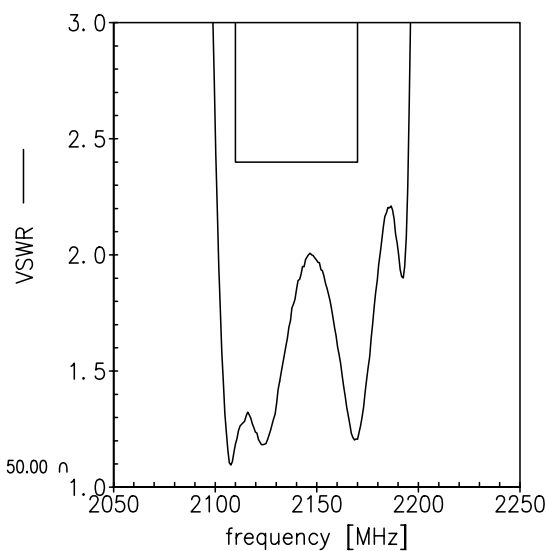
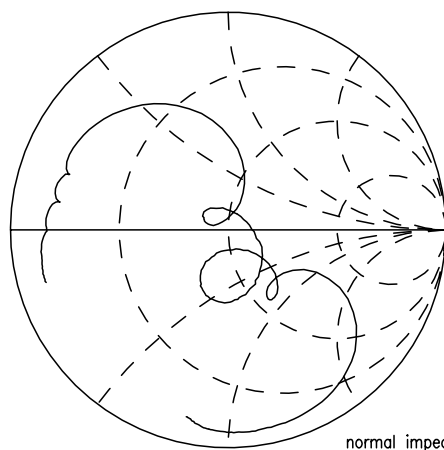


Smith charts

S_{11} function



S_{22} function





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Data sheet	SMD

References

Type	B7750
Ordering code	B39212B7750C810
Marking and package	C61157-A7-A118
Packaging	F61074-V8153-Z000
Date codes	L_1126
S-parameters	B7750_NB.s3p B7750_WB.s3p 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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