



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



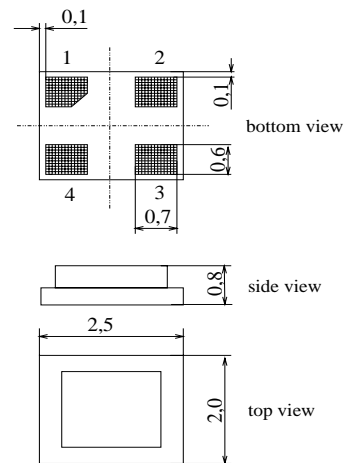
Application

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



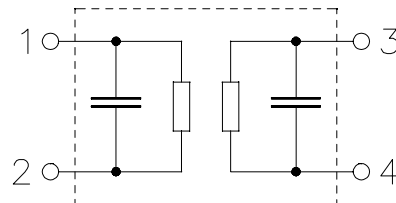
Features

- 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



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

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Data sheet



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	α_{max}			—	2.6	2.8	dB
2110.0 ... 2170.0 MHz							
Amplitude ripple (p-p)	$\Delta\alpha$			—	0.8	1.0	dB
2110.0 ... 2170.0 MHz							
Input VSWR				—	2.2	2.4	
2110.0 ... 2170.0 MHz							
Output VSWR				—	2.2	2.4	
2110.0 ... 2170.0 MHz							
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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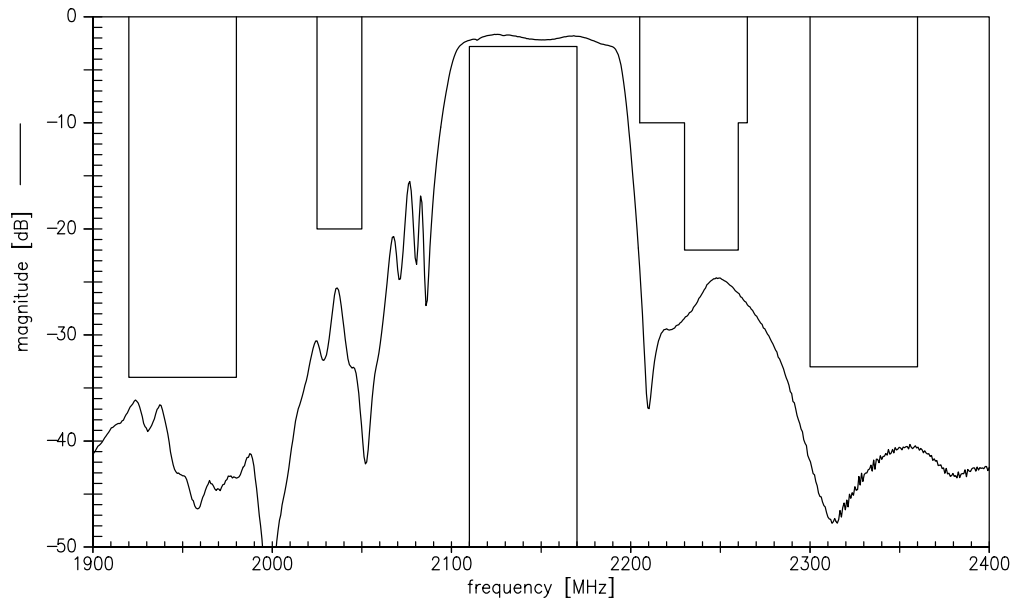
Maximum ratings

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

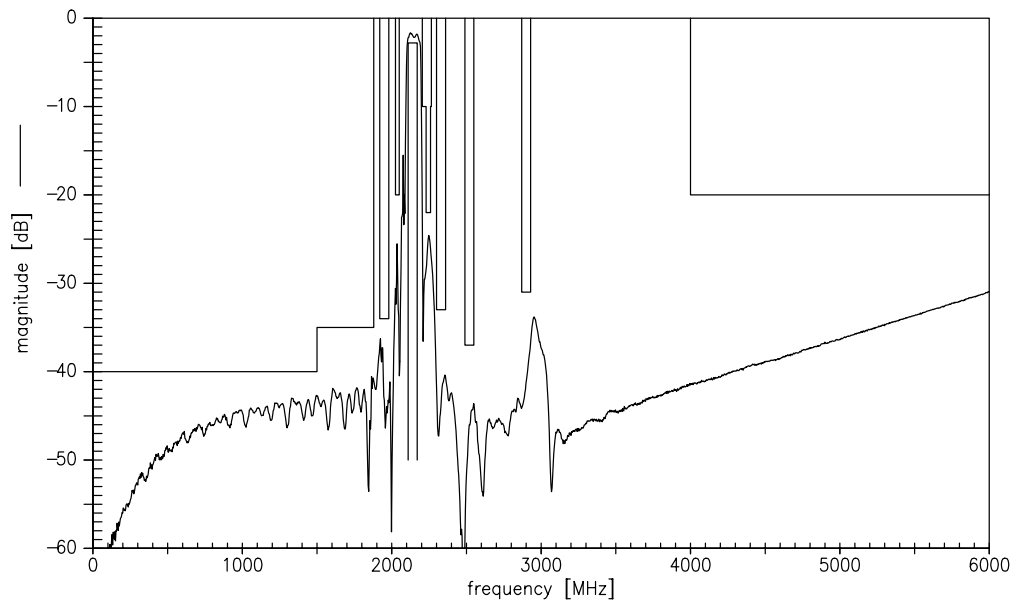
¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (wideband)



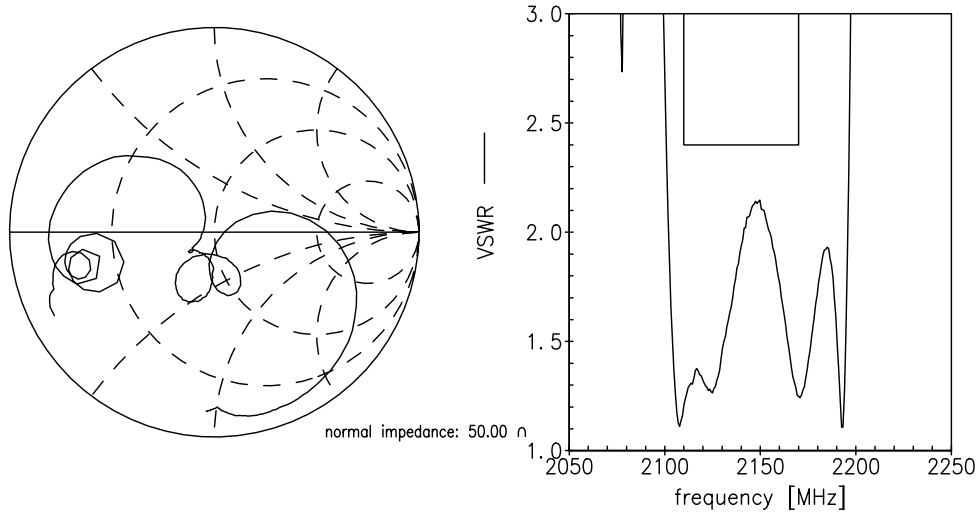
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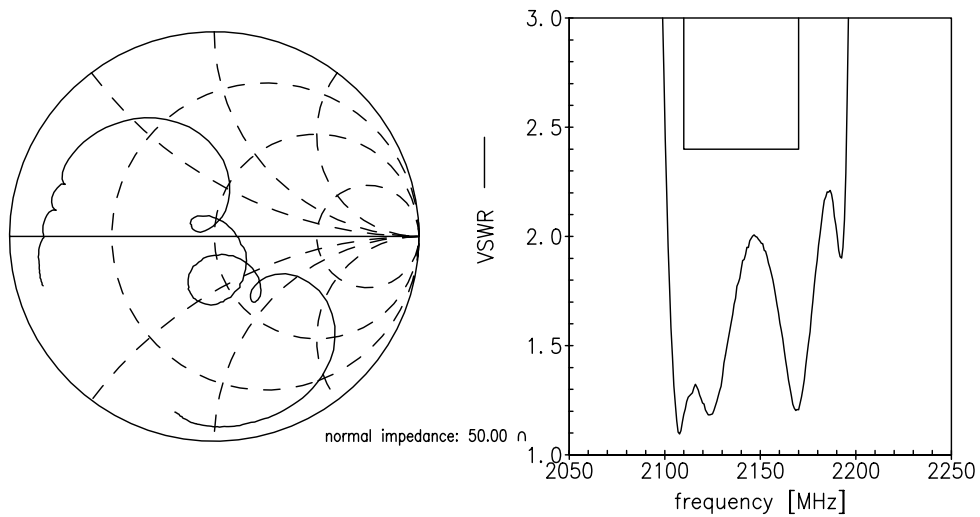


Smith charts

S_{11} function



S_{22} function



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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."

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