SAW Components

SAW filter

W-CDMA

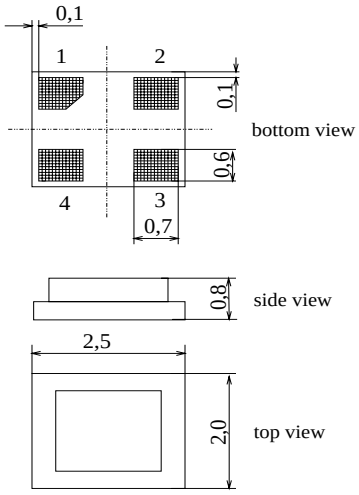
Series/type:	**B7750**
Ordering code:	**B39212B7750C810**
Date:	September 11, 2008
Version:	2.0

Application

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

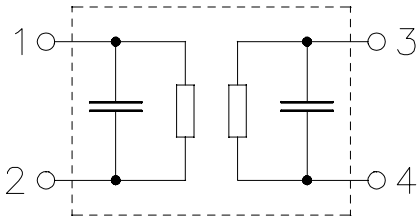
Features

- Package size 2.5 x2.0 x 0.8 mm^3
- Package code DCS4D
- RoHS compatible
- Approximate weight 0.012 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

- 1 Input
- 3 Output
- 2,4 Ground



Data sheet SMD

Characteristics

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

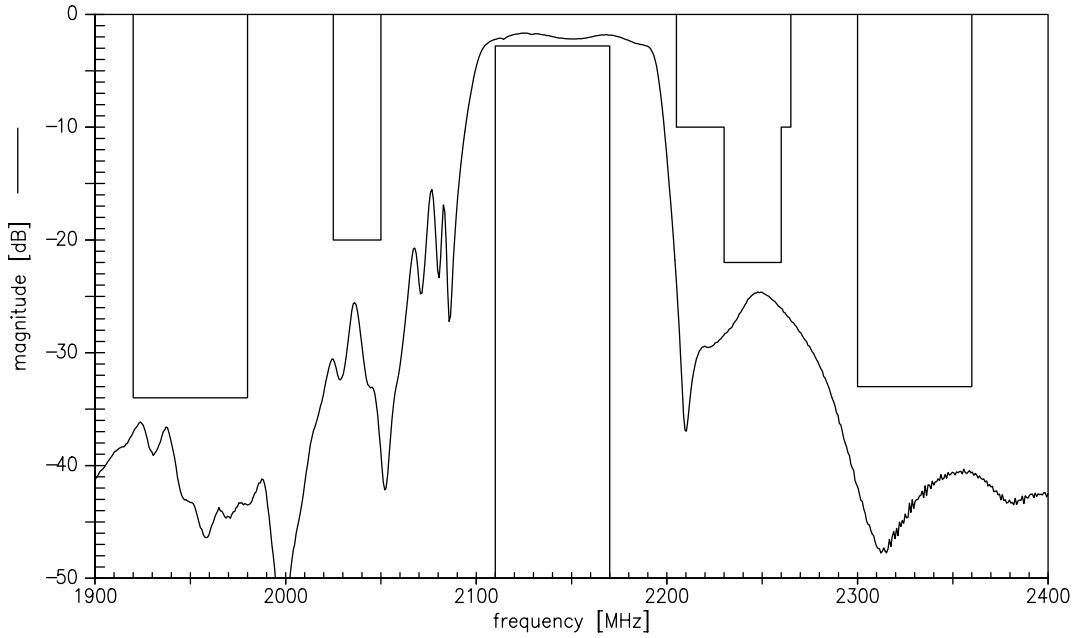
		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	2140.0	—	MHz
Maximum insertion attenuation	α_{max}				
2110.0 ... 2170.0 MHz		—	2.6	2.8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2110.0 ... 2170.0 MHz		—	0.8	1.0	dB
Input VSWR					
2110.0 ... 2170.0 MHz		—	2.2	2.4	
Output VSWR					
2110.0 ... 2170.0 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

Maximum ratings

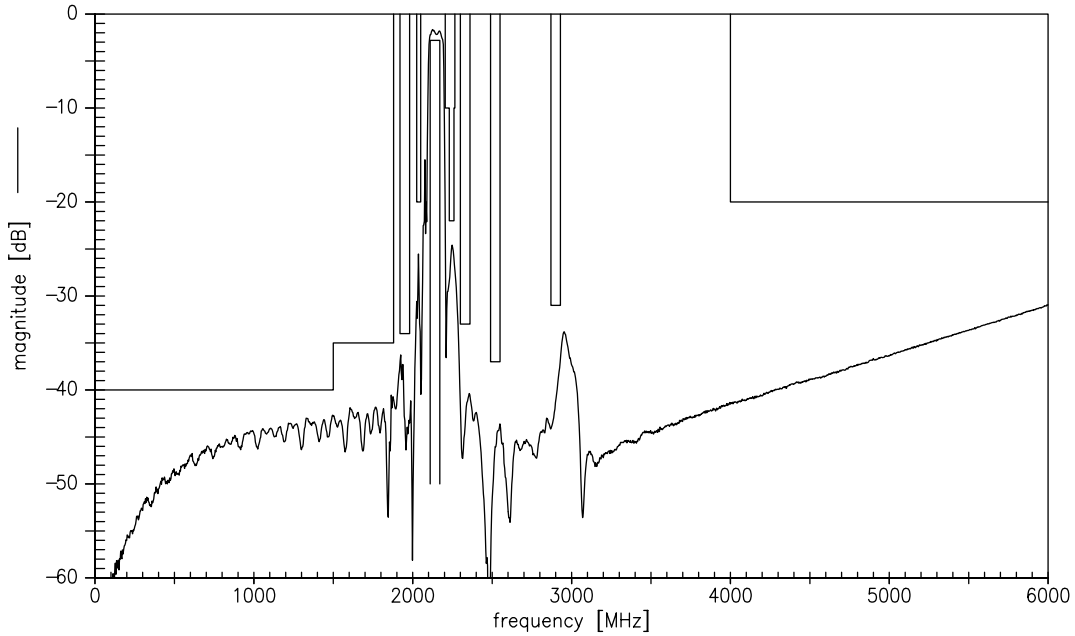
Operable temperature range	T	–20/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model, 1 pulse
Input power max	P_{IN}	13	dBm	source and load impedance 50Ω

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

Transfer function

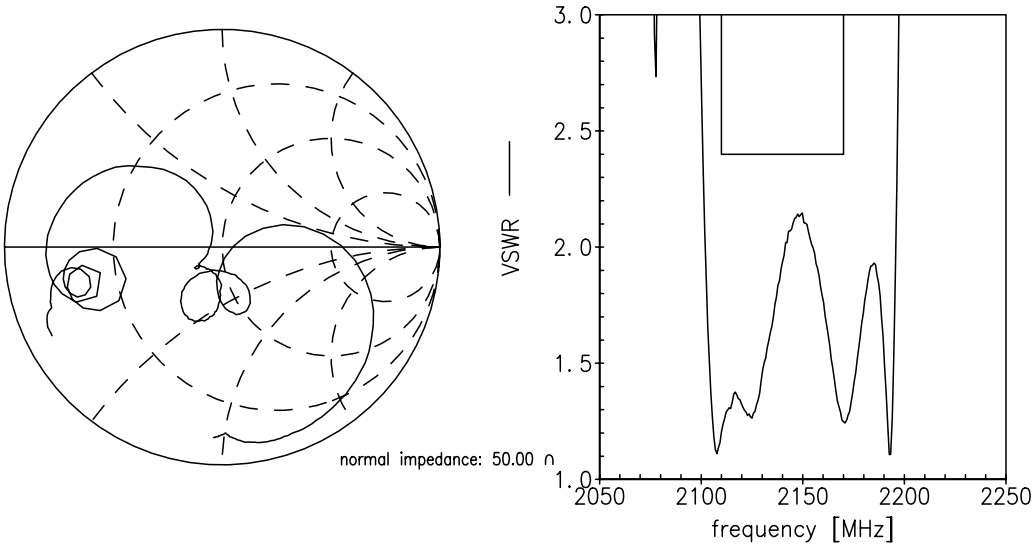


Transfer function (wideband)

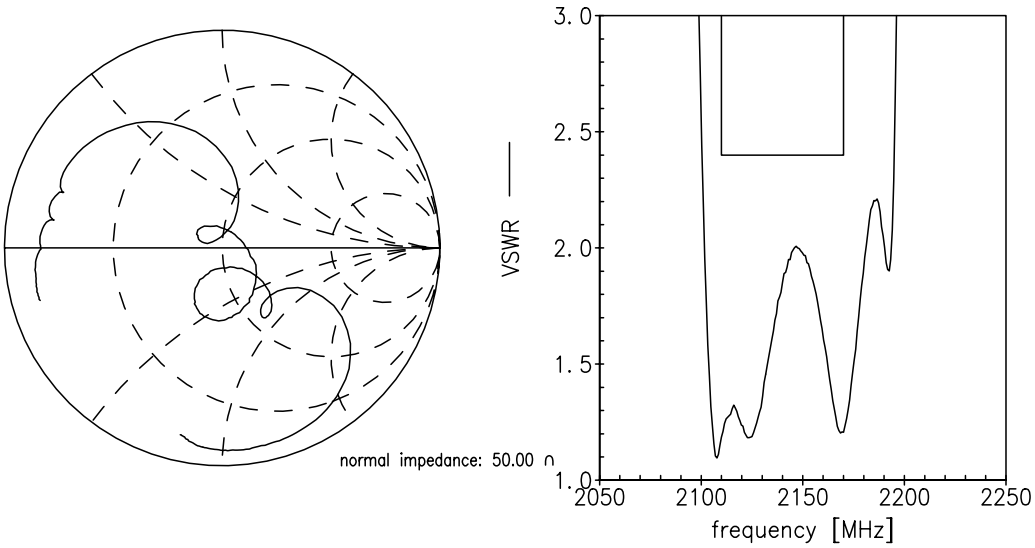


Smith charts

S_{11} function



S_{22} function



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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