SAW Components

SAW filter

WiMax

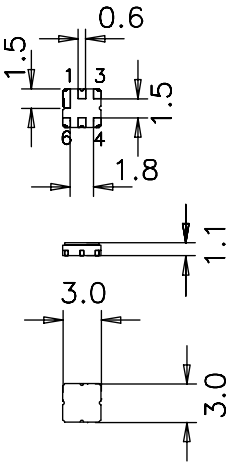
Series/type:	**B5094**
Ordering code:	**B39811B5094U410**
Date:	January 09, 2009
Version:	2.0

Application

- Low-loss IF filter for WiMax systems
- Low amplitude ripple
- No matching required for operation at 50 Ω
- Usable passband 20 MHz

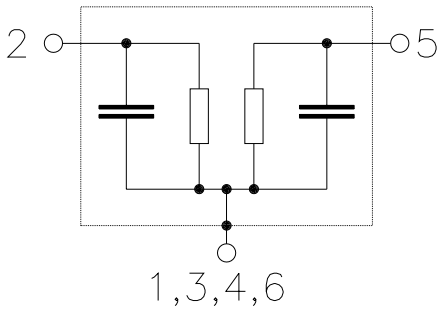
Features

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



Pin configuration

- 2 Input unbalanced
- 5 Output unbalanced
- 1,3,4,6 Case grounded



Data sheet SMD

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

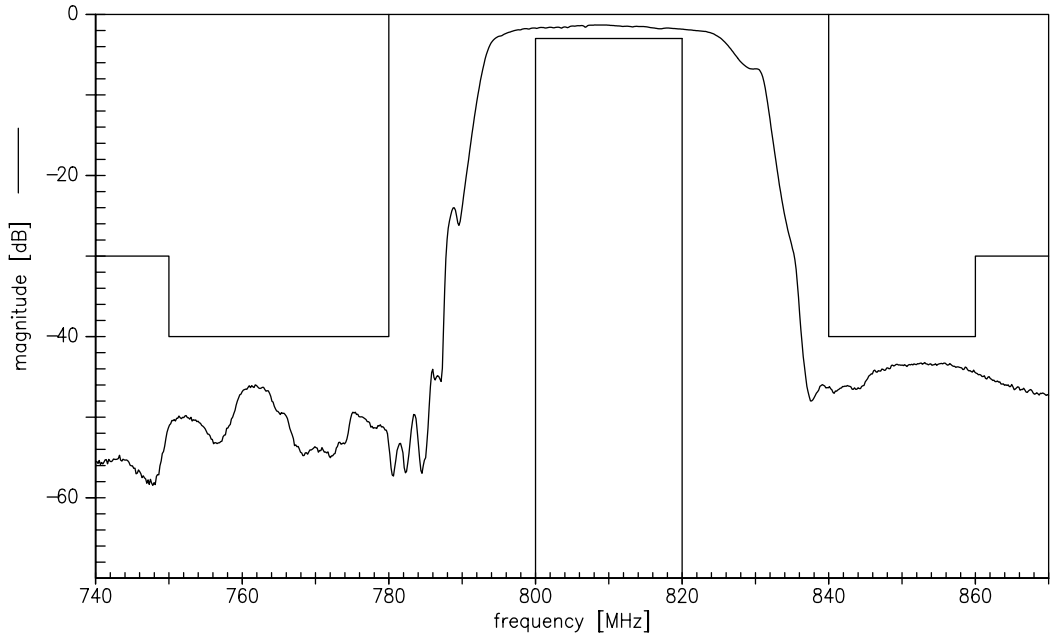
		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	810.0	—	MHz
Maximum insertion attenuation	α_{max}				
800.0 ... 820.0 MHz		—	2.1	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
800.0 ... 820.0 MHz		—	0.6	1.0	dB
Return loss					
800.0 ... 820.0 MHz		10.0	12.0	—	dB
Attenuation	α				
300.0 ... 750.0 MHz		30	55	—	dB
750.0 ... 776.0 MHz		40	45	—	dB
776.0 ... 780.0 MHz		40	45	—	dB
840.0 ... 860.0 MHz		40	43	—	dB
860.0 ... 2000.0 MHz		30	40	—	dB

Maximum ratings

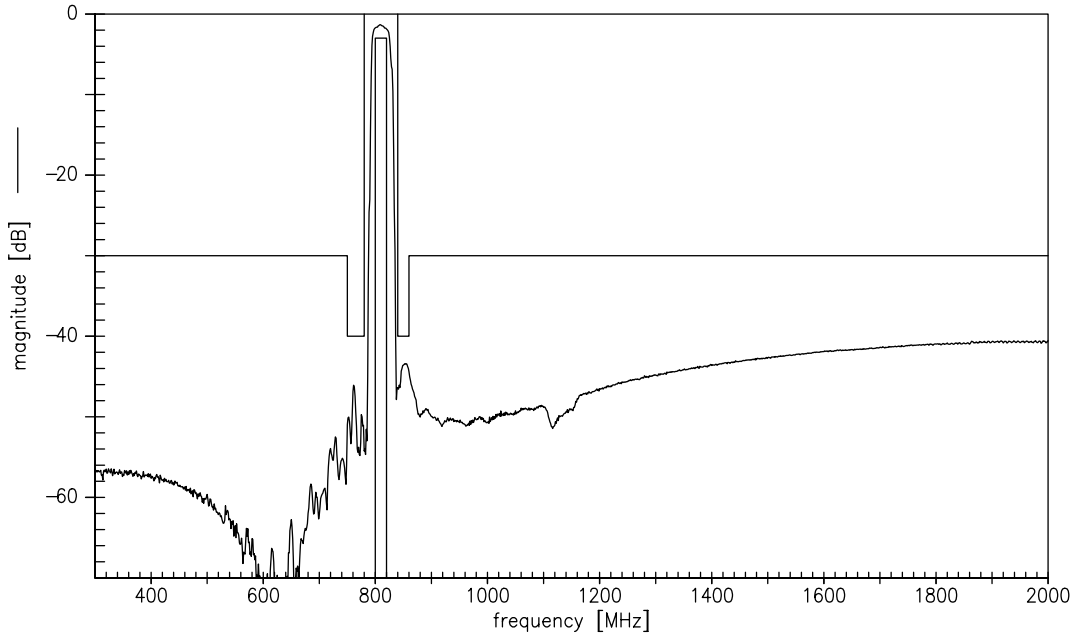
Operable temperature range	T	–40/+85	°C	
Storage temperature range	T_{stg}	–40/+85	°C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 1 pulse
Input power at				
800.0 ... 820.0	P_{IN}	10	dBm	CW

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

Transfer function

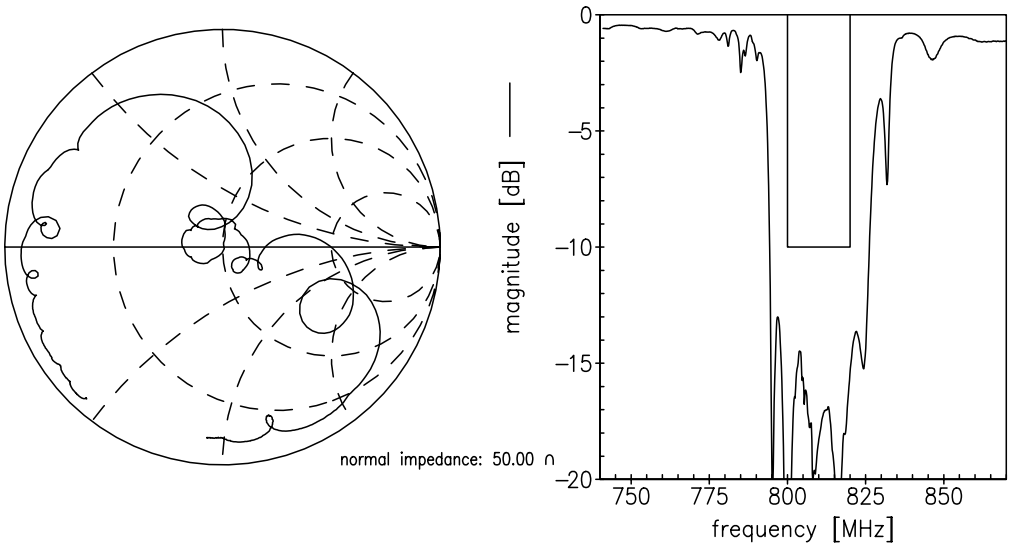


Transfer function (wideband)

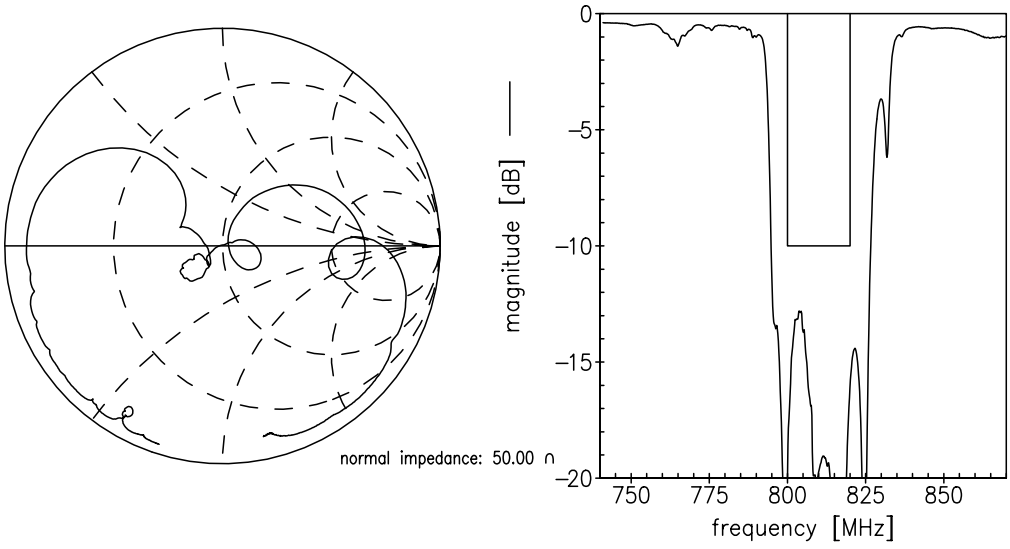


Smith charts

S_{11} function



S_{22} function



References

Type	B5094
Ordering code	B39811B5094U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5094_NB.s2p B5094_WB.s2p
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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Surface Acoustic Wave Components Division
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