SAW Components

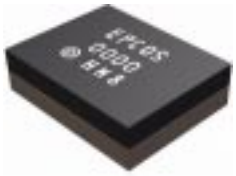
SAW Filter

LTE / WCDMA Band 12

Series/type:	**B8811**
Ordering code:	**B39731B8811P810**
Date:	September 24, 2013
Version:	2.0

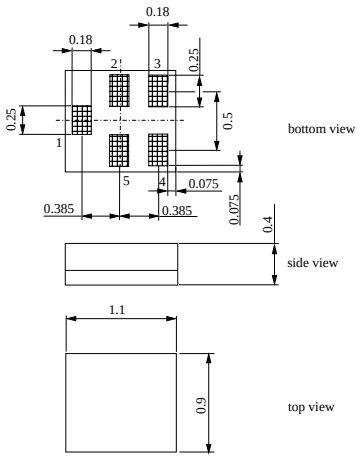
Application

- Low-loss RF filter for mobile telephone LTE and WCDMA Band 12 receive path (RX)
- Usable passband: 17 MHz
- Impedance at input and output 50 Ω
- Unbalanced to unbalanced operation



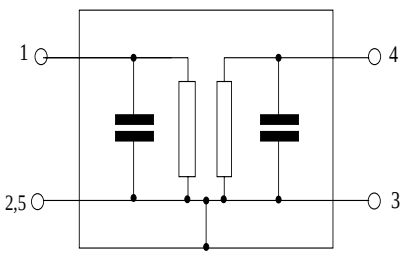
Features

- Package size 1.1 x 0.9 x 0.4 mm³
- RoHS compatible
- Approx. weight 0.001g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitive **L**evel 3



Pin configuration

- 1 Input unbalanced
- 4 Output unbalanced
- 2,3,5 To be grounded



Characteristics

Temperature range for specification: T = –20 ˚C to +90 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

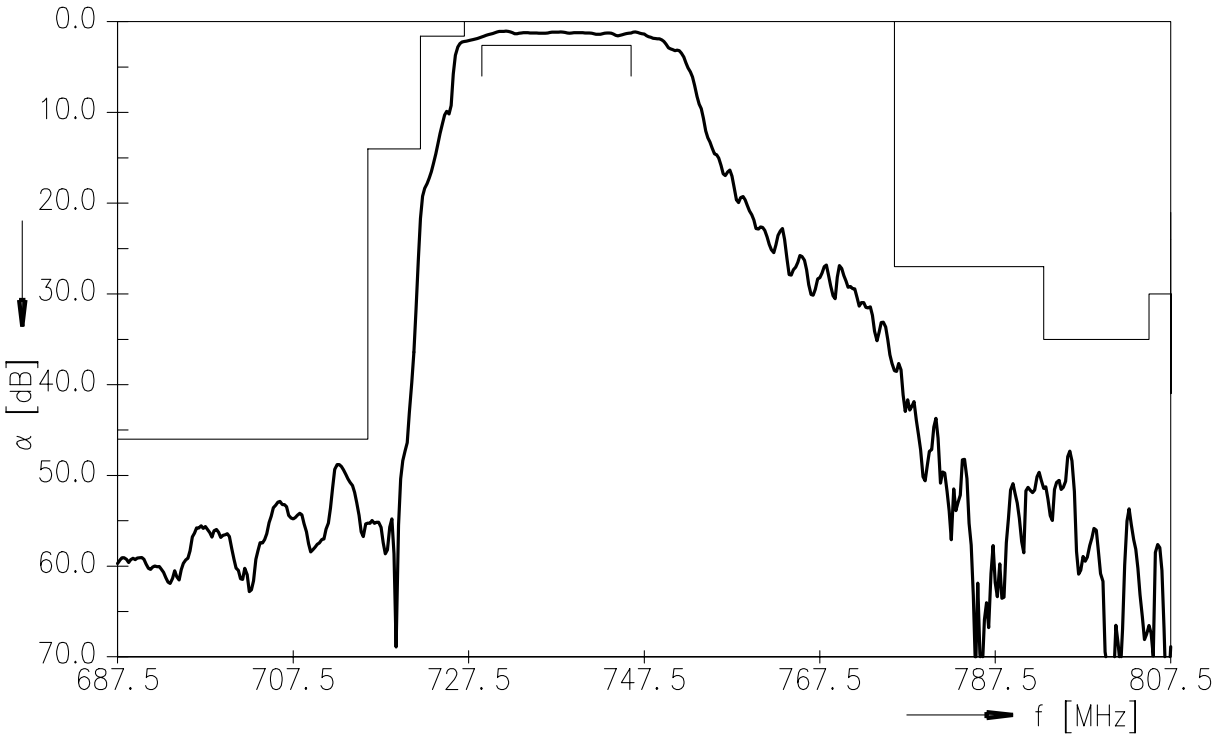
		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	737.5	—	MHz
Maximum insertion attenuation	α_{max}				
729.0 ... 746.0 MHz		—	1.8	2.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
729.0 ... 746.0 MHz		—	0.7	1.5	dB
Input VSWR					
729.0 ... 746.0 MHz		—	2.0	2.5	
Output VSWR					
729.0 ... 746.0 MHz		—	2.0	2.5	
Attenuation	α				
10.00 ... 699.00 MHz		46	55	—	dB
699.00 ... 716.00 MHz		46	48	—	dB
716.00 ... 722.00 MHz		14	21	—	dB
722.00 ... 727.00 MHz		1.6	2.1	—	dB
776.00 ... 793.00 MHz		27	37	—	dB
793.00 ... 805.00 MHz		35	47	—	dB
805.00 ... 1710.0 MHz		30	47	—	dB
1710.0 ... 1755.0 MHz		41	46	—	dB
1755.0 ... 1850.0 MHz		30	46	—	dB
1850.0 ... 1910.0 MHz		41	45	—	dB
1910.0 ... 2187.0 MHz		30	43	—	dB
2187.0 ... 2238.0 MHz		36	42	—	dB
2238.0 ... 2400.0 MHz		30	42	—	dB
2400.0 ... 2500.0 MHz		35	41	—	dB
2500.0 ... 4900.0 MHz		30	37	—	dB
4900.0 ... 5950.0 MHz		24	34	—	dB
5950.0 ... 6000.0 MHz		21	33	—	dB

AMaximum ratings

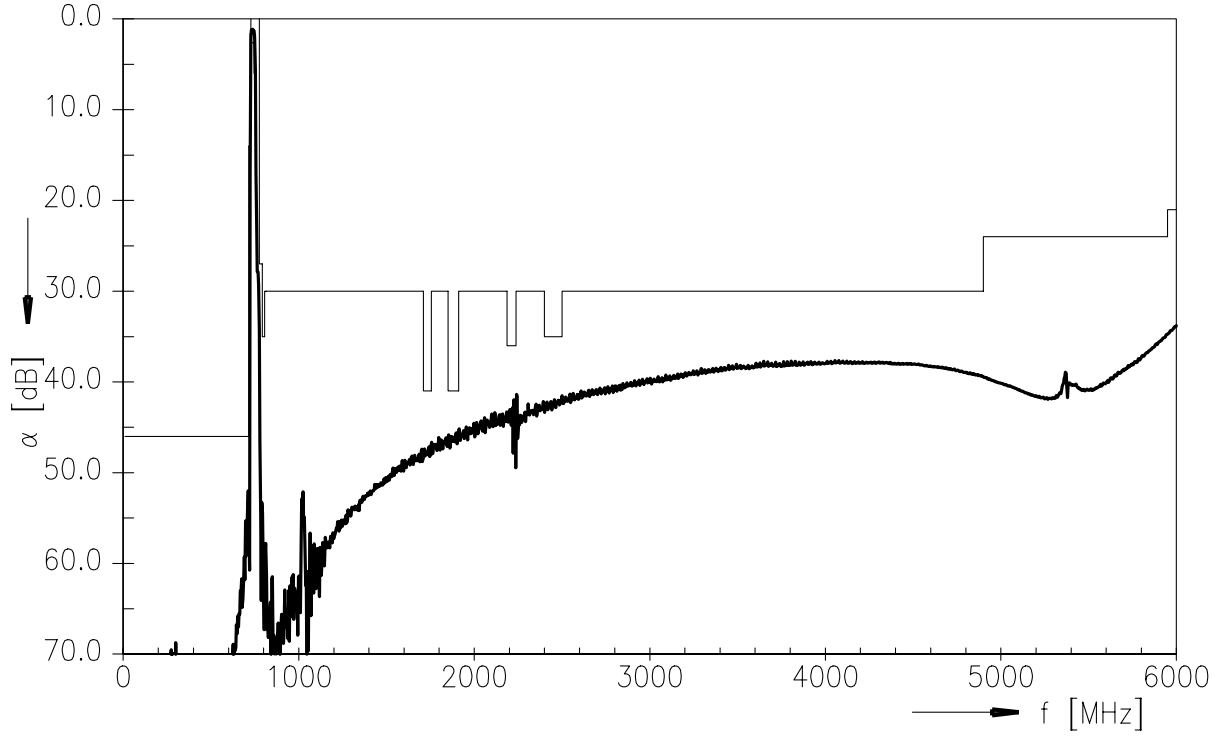
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 10 pulse
Input power				
729.0 ...746.0 MHz	P_{IN}	10	dBm	continuous wave

1) acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulse.

Frequency response (narrowband)

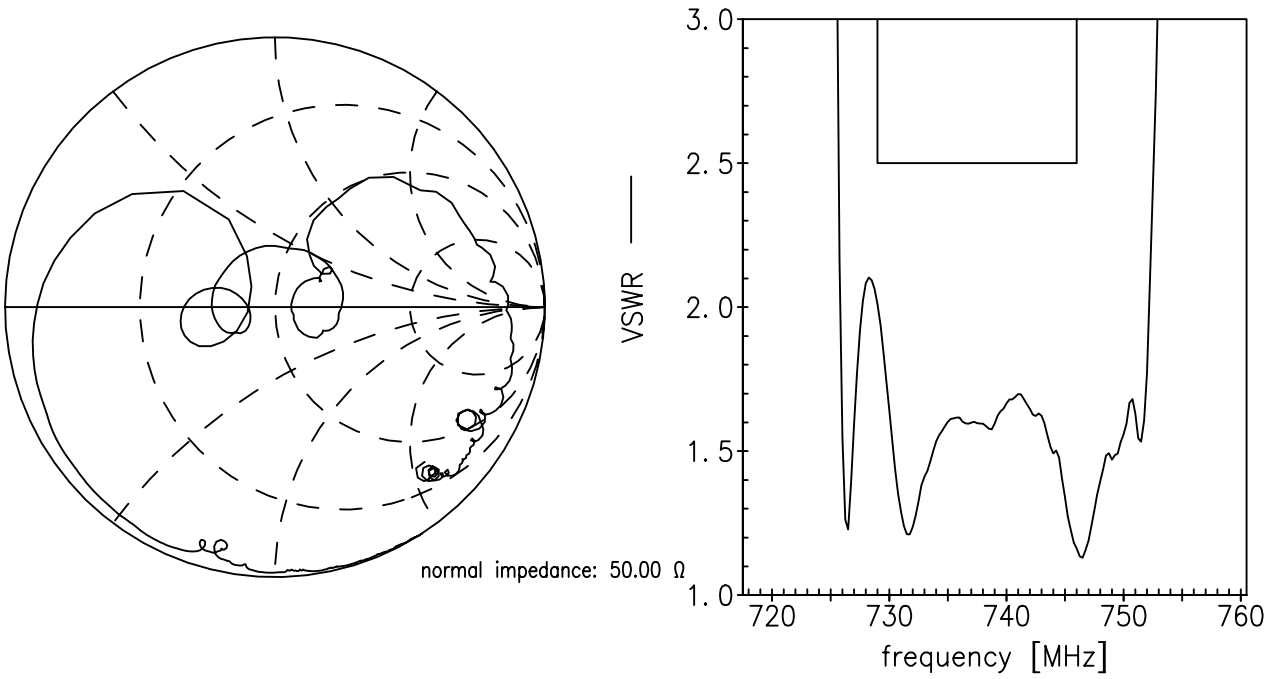


Frequency response (wideband)

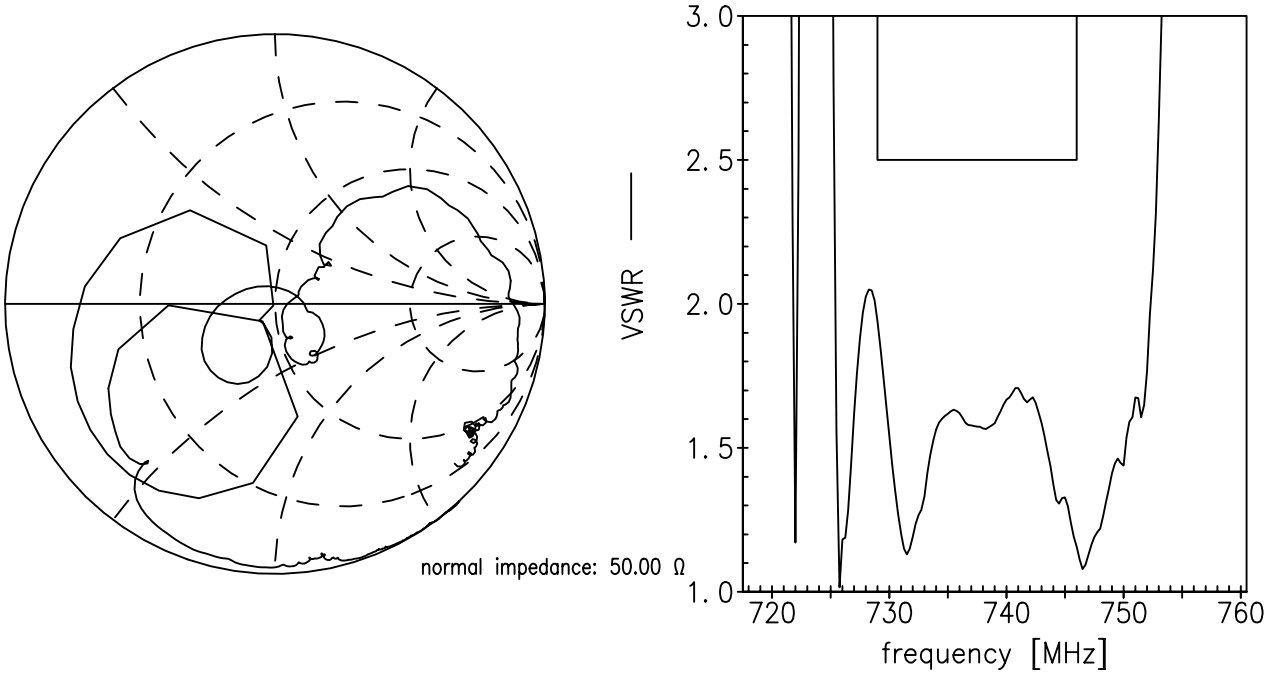


Smith chart

S_{11} function



S_{22} function



References

Type	B8811
Ordering code	B39731B8811P810
Marking and package	C61157-A8-A56
Packaging	F61074-V8255-Z000
Date codes	L_1126
S-parameters	B8811_NB.s2p, B8811_WB.s2p
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coils	See http://www.tdk.co.jp/tefe02/coil.htm#aname1 http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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