



SAW Components

SAW Tx filter

WCDMA Band 4

Series/Type:	B8801
Ordering code:	B39172B8801P810
Date:	May 21, 2013
Version:	2.0



Data sheet



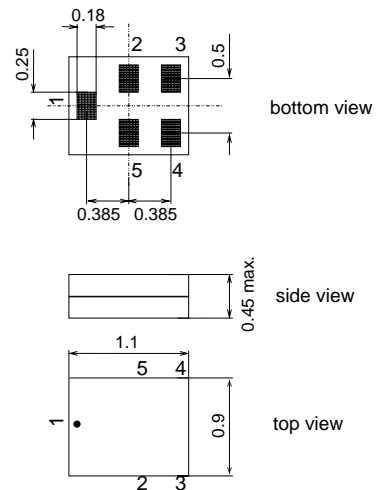
Application

- Low-loss RF filter for mobile telephone WCDMA Band 4 system, transmit path (Tx)
- Suitable for diversity applications
- Impedance 50 ohm input and output
- Unbalanced to unbalanced operation
- Usable passband 45 MHz



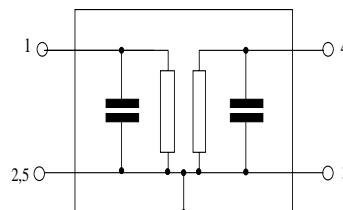
Features

- Package size 1.1 x 0.9 mm²
- Maximum package height 0.45 mm
- RoHS compatible
- Approx. weight 0.001g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitive Level 3



Pin configuration

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





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Characteristics

Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	1732.5	—	MHz
Maximum insertion attenuation 1710.0 ... 1755.0 MHz	α_{max}	—	1.4	2.0	dB
Amplitude ripple (p-p) 1710.0 ... 1755.0 MHz	$\Delta\alpha$	—	0.7	1.3	dB
Input VSWR 1710.0 ... 1755.0 MHz		—	1.7	2.0	
Output VSWR 1710.0 ... 1755.0 MHz		—	1.7	2.0	
Attenuation	α				
10.0 ... 1574.0 MHz		35	49	—	dB
1574.0 ... 1607.0 MHz		35	46	—	dB
2110.0 ... 2155.0 MHz		35	44	—	dB
2400.0 ... 2500.0 MHz		35	44	—	dB
3415.0 ... 3515.0 MHz		35	38	—	dB
5125.0 ... 5270.0 MHz		25	32	—	dB
5270.0 ... 6000.0 MHz		28	31	—	dB



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Maximum ratings

Storage temperature range	T_{stg}	-40/+85 ¹⁾	°C	Machine Model Continuous Wave @ 55°C 2000h
DC voltage	V_{DC}	5 ²⁾	V	
ESD voltage	V_{ESD}	50 ³⁾	V	
Input power at 1710.0 ... 1755.0 MHz	P_{IN}	15	dBm	

1) extended upperlimit: 168h@125°C acc. to IEC 60068-2-2 Bb

2) 168h Damp Heat Steady State acc. to IEC 60068-2-67 Cy

3) acc. to JESD22-A115B (MM - Machine Model), 10 negative & 10 positive pulse



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B8801

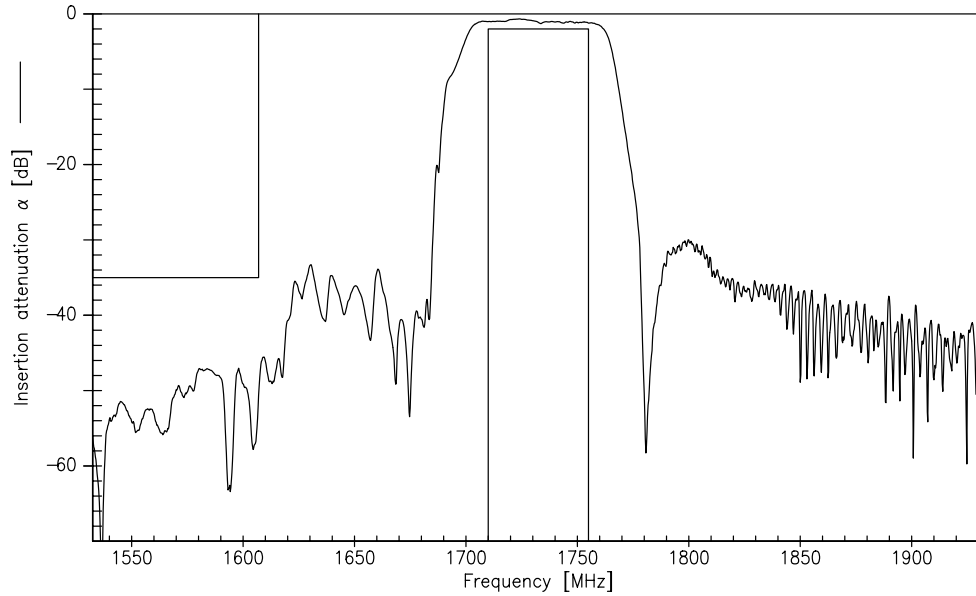
SAW Filter

1732.5 MHz

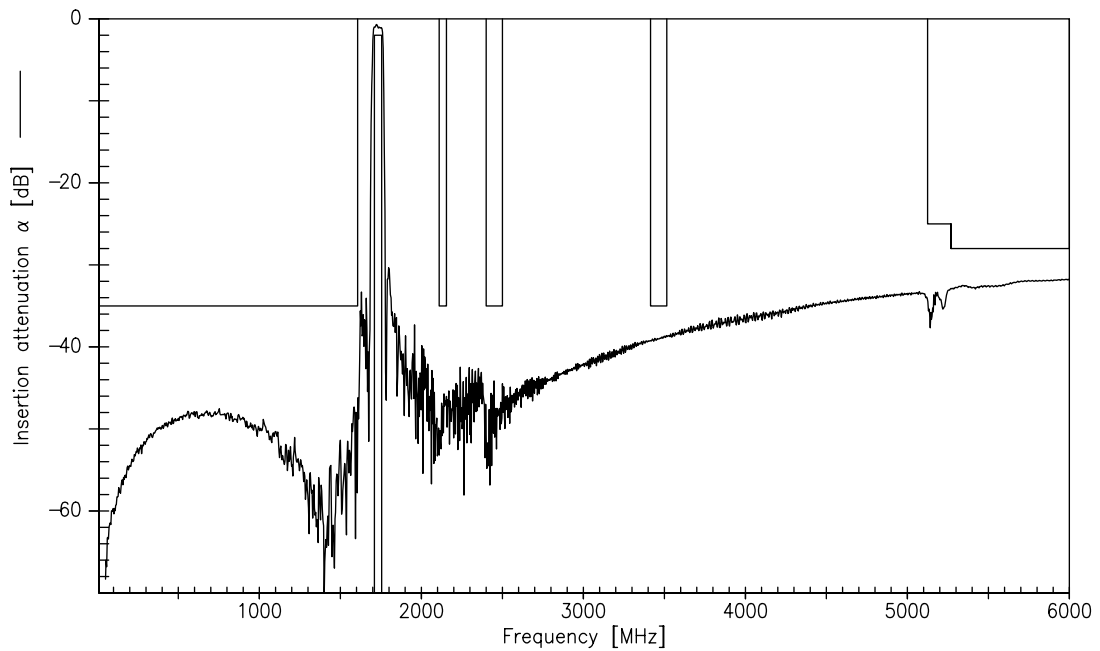
Data sheet



Transfer function (narrowband)



Transfer function (wideband)



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

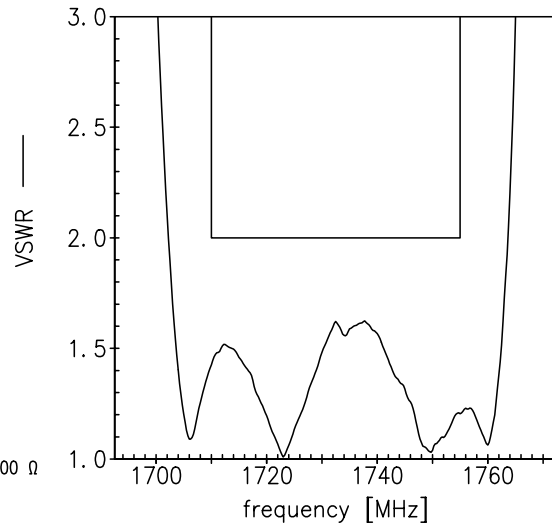
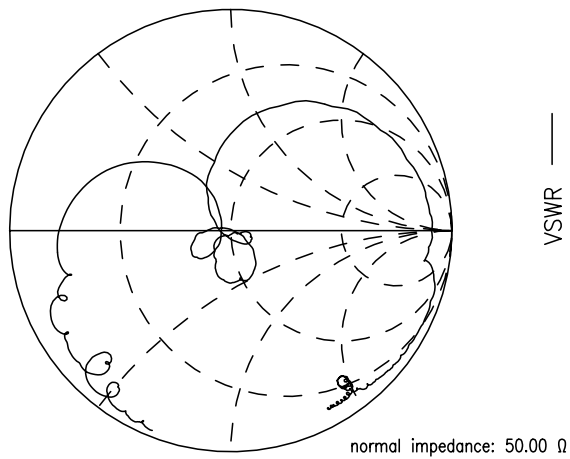


Data sheet

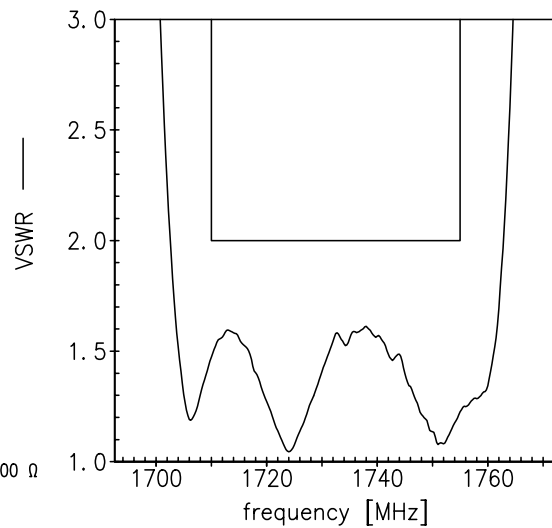
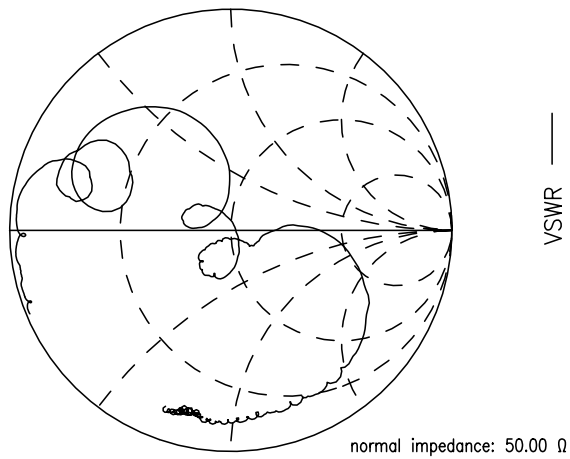


Smith charts

S₁₁ function



S₂₂ function





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References

Type	B8801
Ordering code	B39172B8801P810
Marking and package	C61157-A8-A56
Packaging	F61074-V8255-Z000
Date codes	L_1126
S-parameters	B8801_NB.s2p, B8801_WB.s2p see file header for port/pin assignment table
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 Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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