



SAW Components

SAW Diversity filter

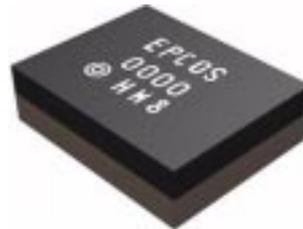
LTE Band 20

Series/Type:	B8814
Ordering code:	B39811B8814P810
Date:	July 24, 2013
Version:	2.0



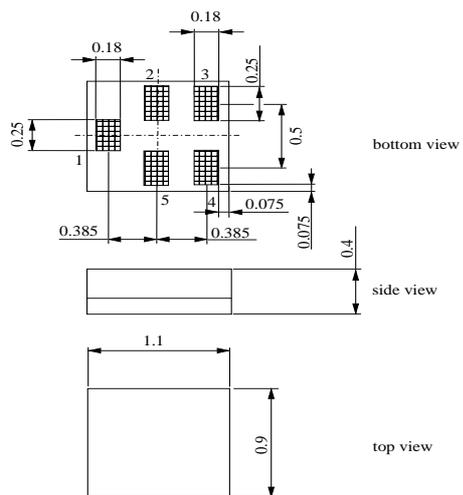
Application

- Low-loss diversity filter for LTE band 20, RX path
- Impedance 50 ohm input and output
- Unbalanced /unbalanced operation
- Usable passband 30 MHz



Features

- Package size 1.1 x 0.9 x 0.4 mm³
- 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

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



Data sheet



Characteristics

Temperature range for specification: $T = -20\text{ °C to }+90\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	806.0	—	MHz
Average insertion attenuation	α 791.0 ... 821.0 MHz	—	1.4 ¹⁾	—	dB
Maximum insertion attenuation	α_{max} 791.0 ... 821.0 MHz	—	1.8	3.5	dB
	791.0 ... 821.0 MHz ²⁾	—	1.8	2.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$ 791.0 ... 821.0 MHz	—	1.0	2.5	dB
Input VSWR	791.0 ... 821.0 MHz	—	2.0	2.3	
Output VSWR	791.0 ... 821.0 MHz	—	2.0	2.3	
Absolute attenuation	α 10.0 ... 731.0 MHz	40	50	—	dB
	760.0 ... 770.0 MHz	30	40	—	dB
	832.0 ... 862.0 MHz	40	43	—	dB
	880.0 ... 915.0 MHz	40	45	—	dB
	1710.0 ... 1785.0 MHz	40	45	—	dB
	2373.0 ... 2570.0 MHz	30	37	—	dB
	4900.0 ... 6000.0 MHz	20	27	---	dB

¹⁾ Average value of the parameter over the indicated band. The average value may vary over the time.

²⁾ At 25 °C



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SAW Filter

806.0 MHz

Data sheet



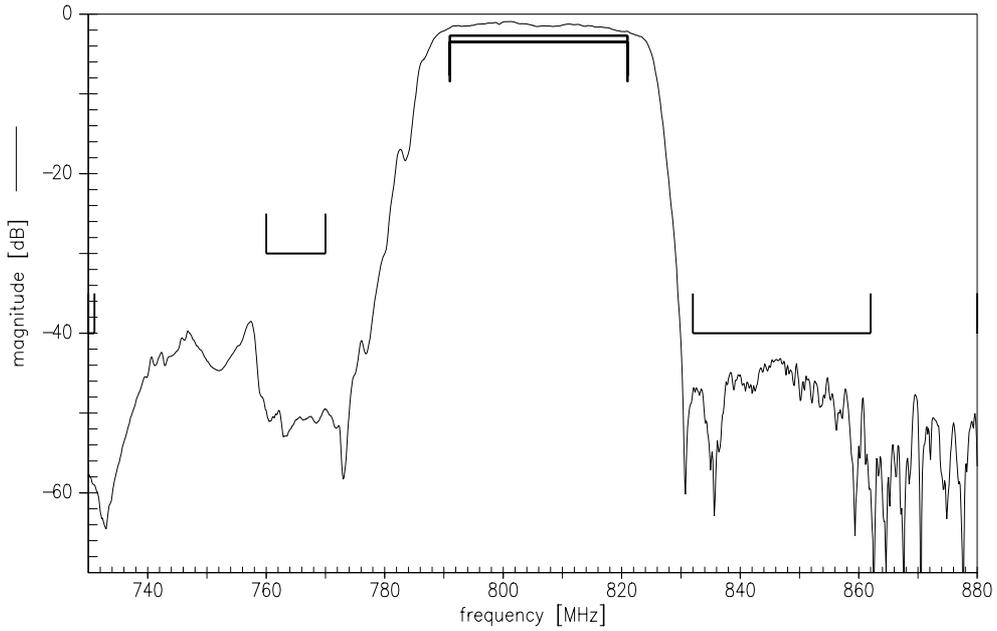
Maximum ratings

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, 1 pulse
Input Power at 832. ... 862.0 MHz	P _{IN}	15	dBm	Continuous wave, 55°C, 50 000h

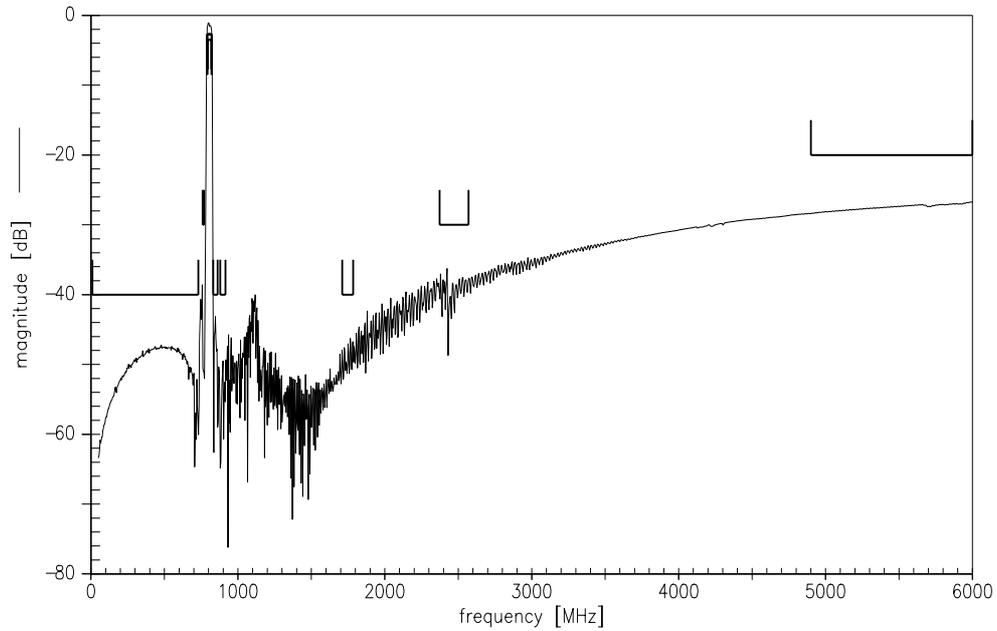
¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function (narrow band)

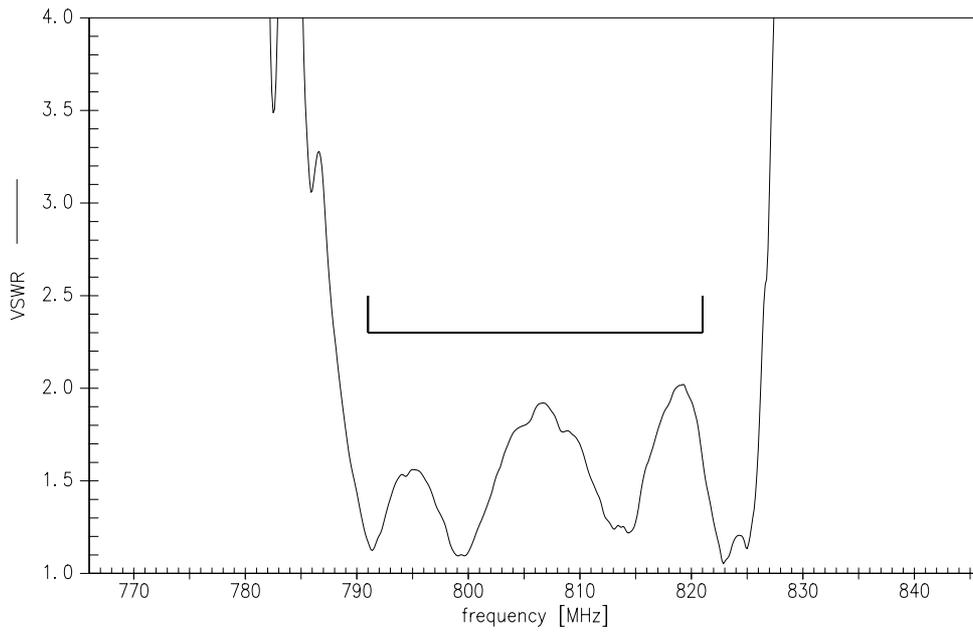


Transfer function (wide band)

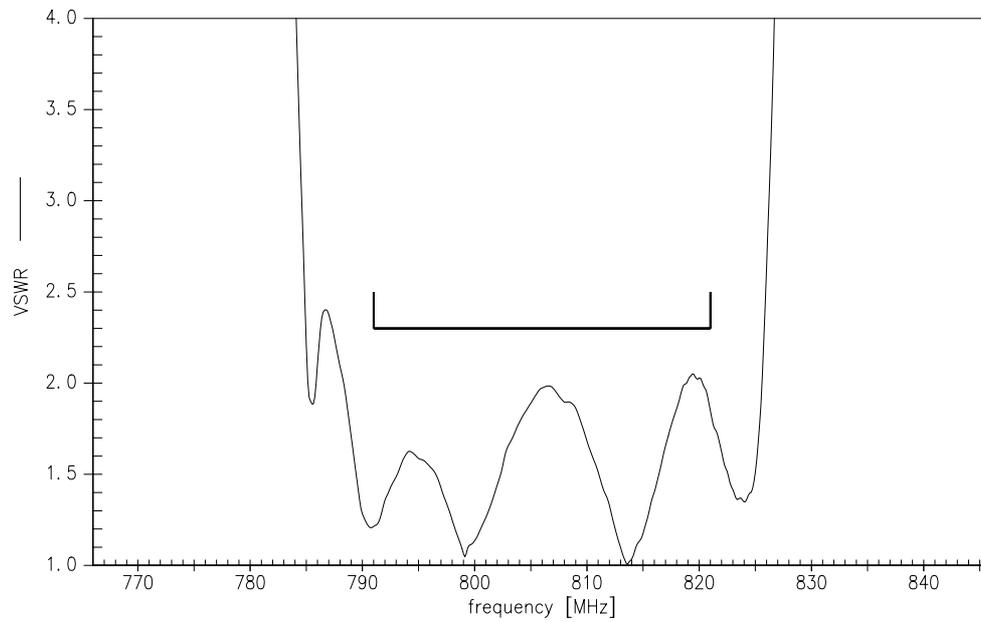




VSWR11



VSWR22



**SAW Components****B8814****SAW Filter****806.0 MHz**

Data sheet

**References**

Type	B8814
Ordering code	B39811B8814P810
Marking and package	C61157-A8-A56
Packaging	F61074-V8255-Z000
Date codes	L_1126
S-parameters	
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 8 th , 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.

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

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