



# SAW Components

## SAW Diversity filter

LTE Band 17

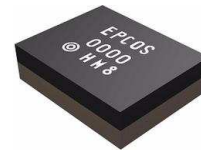
<b>Series/Type:</b>	<b>B9892</b>
<b>Ordering code:</b>	<b>B39741B9892P810</b>
<b>Date:</b>	<b>June 13, 2014</b>
<b>Version:</b>	<b>2.1</b>

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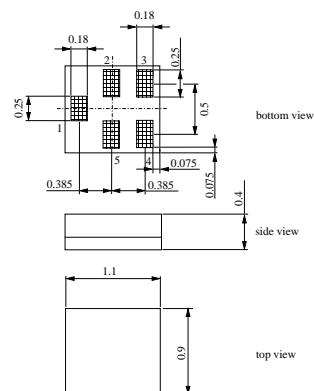
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**Application**

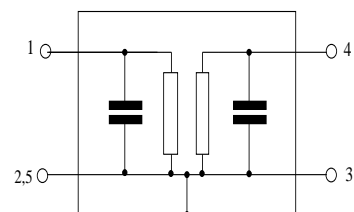
- Low loss RF filter for LTE Band 17 system (Rx diversity)
- Usable band width 12 MHz
- Unbalanced to balanced operation (50 Ω/100 Ω)


**Features**

- Package size 1.1 x 0.9 x 0.4 mm<sup>3</sup>
- 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
- 3,4 Output, balanced
- 2,5 To be grounded



**Data Sheet**

**Characteristics**

Temperature range for specification:	$T = -30\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 100\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	740.0	—	MHz
<b>Maximum insertion attenuation</b> 734.0 ... 746.0 MHz	$\alpha_{\max}$	—	1.8	2.3	dB
<b>Amplitude ripple (p-p)</b> 734.0 ... 746.0 MHz	$\Delta\alpha$	—	0.8	1.3	dB
<b>Input VSWR</b> 734.0 ... 746.0 MHz		—	1.7	2.0	
<b>Output VSWR</b> 734.0 ... 746.0 MHz		—	1.7	2.0	
<b>CMRR (<math> S_{21}-S_{31}  /  S_{21}+S_{31} </math>)</b> 734.0 ... 746.0 MHz		25	40	—	dB
<b>Absolute attenuation</b>	$\alpha$				
30.0 ... 686.0 MHz		50	68	—	dB
704.0 ... 716.0 MHz		46	51	—	dB
716.0 ... 722.0 MHz		40	48	—	dB
722.0 ... 725.0 MHz		30	47	—	dB
725.0 ... 728.0 MHz		10	31	—	dB
777.0 ... 793.0 MHz		33	38	—	dB
793.0 ... 1438.0 MHz		40	51	—	dB
1438.0 ... 1462.0 MHz		40	65	—	dB
1468.0 ... 1492.0 MHz		40	65	—	dB
1570.0 ... 1610.0 MHz		50	65	—	dB
2124.0 ... 2178.0 MHz		40	65	—	dB
2202.0 ... 2238.0 MHz		40	55	—	dB
2400.0 ... 2484.0 MHz		50	65	—	dB
2496.0 ... 2690.0 MHz		40	65	—	dB
2936.0 ... 2984.0 MHz		40	65	—	dB
3400.0 ... 3800.0 MHz		40	65	—	dB
4404.0 ... 4476.0 MHz		40	60	—	dB
4900.0 ... 5850.0 MHz		40	58	—	dB
5872.0 ... 5968.0 MHz		40	50	—	dB

<b>SAW Components</b>	<b>B9892</b>
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<b>SAW Filter</b>	<b>740.0 MHz</b>
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Data Sheet

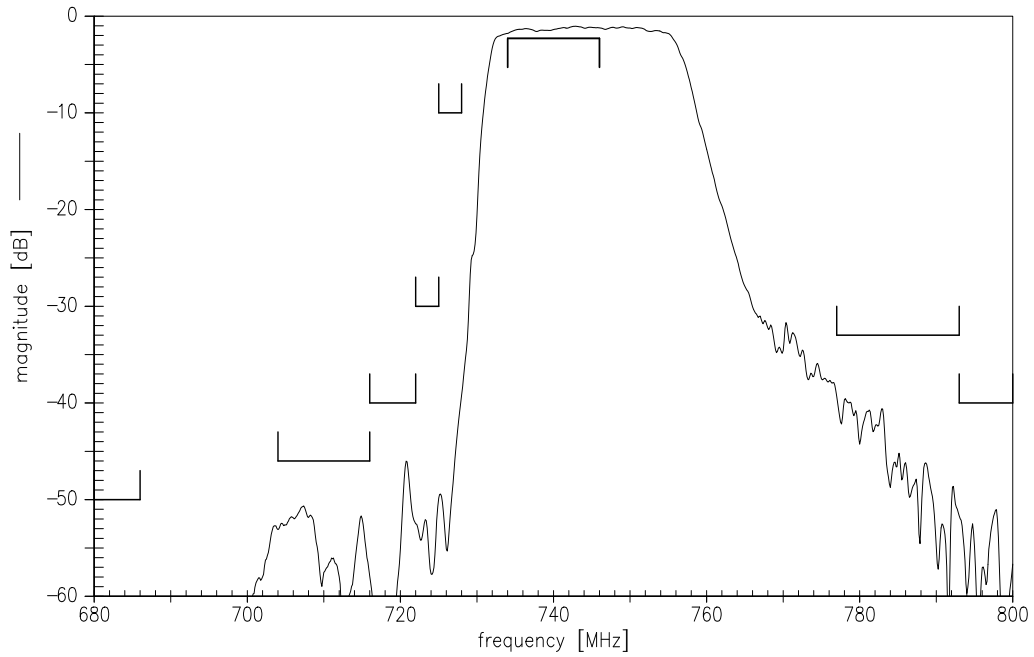
**SMD**

**Maximum ratings**

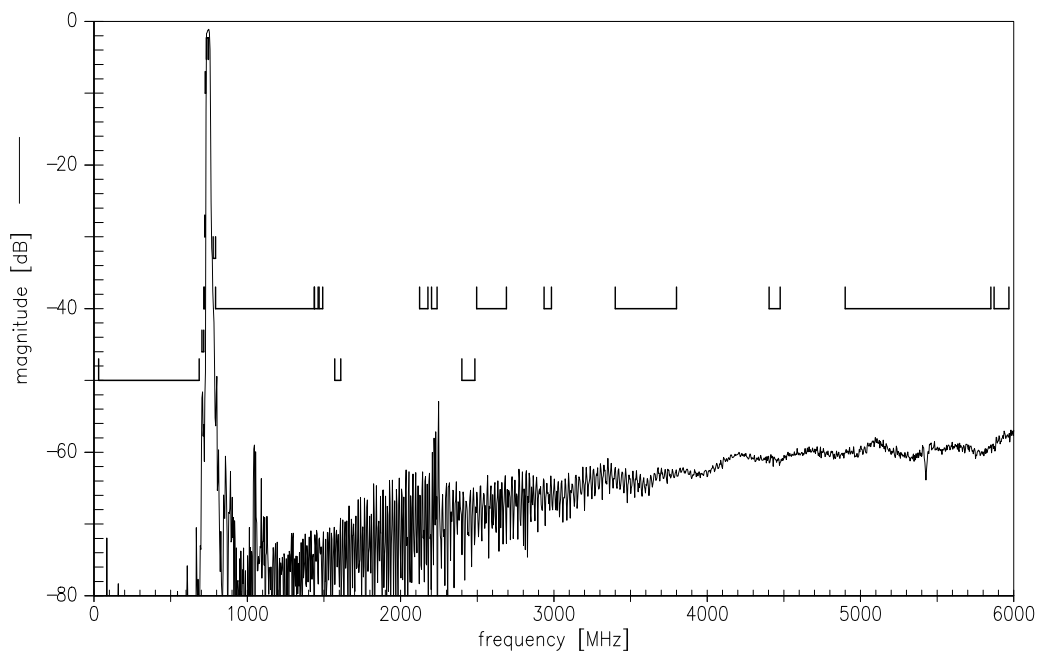
Storage temperature range	$T_{stg}$	-40/+85	°C	M model, 1 pulse
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	100 <sup>1)</sup>	V	
Input power 704.0 ... 716.0 MHz	$P_{in}$	15	dBm	T=85°C, 50 000 h

<sup>1)</sup> acc. to JESD22-A115A (Machine model), 1 negative & 1 positive pulses.

**Transfer function (narrow band)**



**Transfer function (wide band)**



<b>SAW Components</b>	<b>B9892</b>
<b>SAW Filter</b>	<b>740.0 MHz</b>
Data Sheet	

## References

<b>Type</b>	B9892
<b>Ordering code</b>	B39741B9892P810
<b>Marking and package</b>	C61157-A8-A56
<b>Packaging</b>	F61074-V8255-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B9892_NB.s3p, B9892_WB.s3p see file header for port/in assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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 <sup>th</sup> , 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.
<b>Matching coils</b>	See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a>

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