

# SAW Components

## SAW RF filter

LTE Band 20

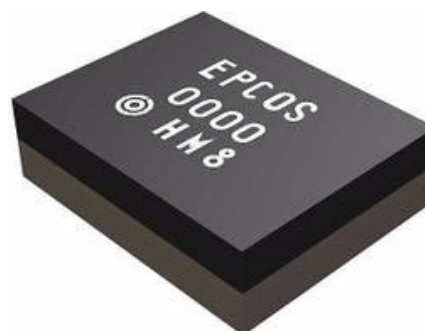
<b>Series/type:</b>	<b>B9485</b>
<b>Ordering code:</b>	<b>B39851B9485P810</b>
Date:	December 13, 2011
Version:	2.0

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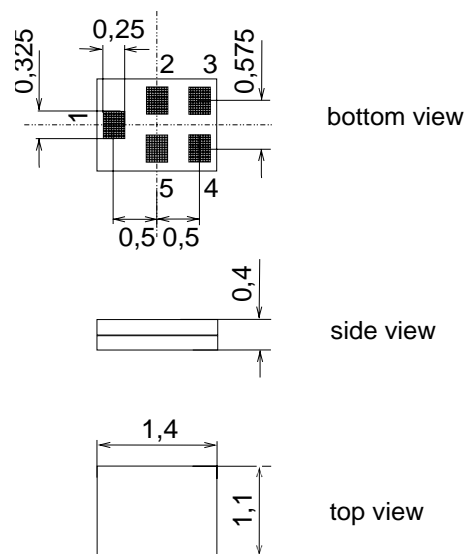
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**Application**

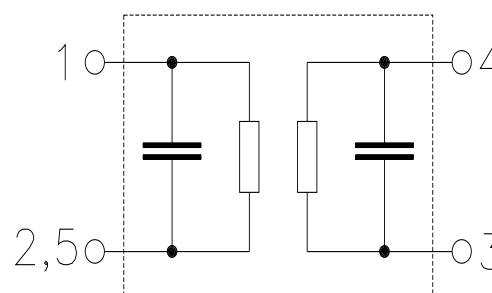
- Low Loss RF filter for LTE band 20, TX path
- Usable band width 30 MHz
- Unbalanced to unbalanced operation (50 Ω/50 Ω)
- Very small size and low height


**Features**

- Package size 1.4 x 1.1 mm<sup>2</sup>, package height 0.4 mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


**Pin configuration**

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




**Characteristics**

Temperature range for specification:	T = -30 °C to 85 °C
Terminating source impedance:	Z <sub>S</sub> = 50 Ω
Terminating load impedance:	Z <sub>L</sub> = 50 Ω

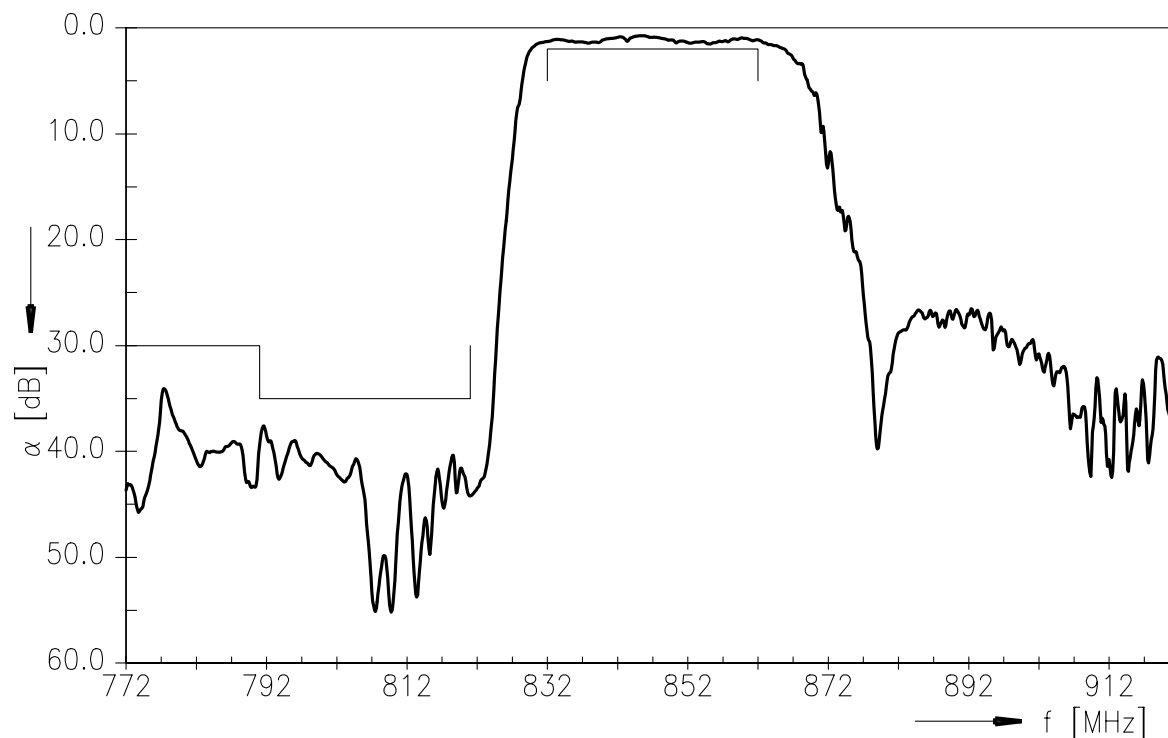
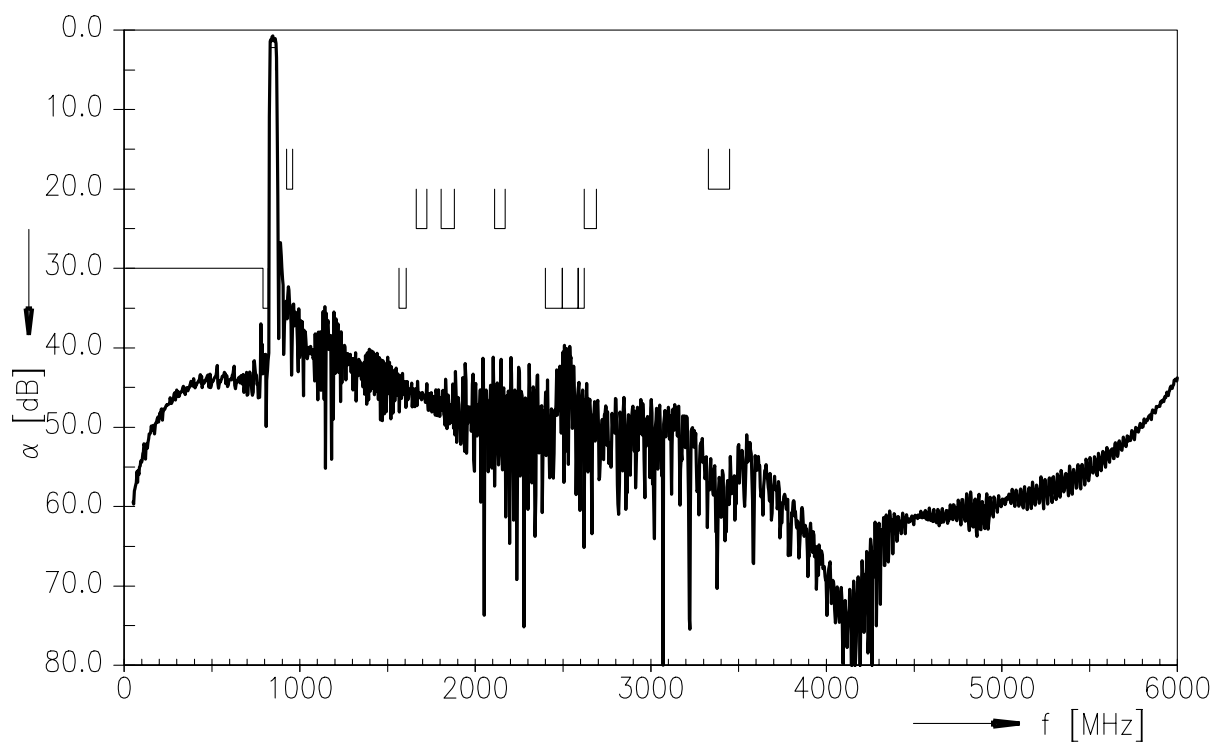
		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	f <sub>N</sub>	—	847.0	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>				
832.0 ... 862.0 MHz <sup>1)</sup>		—	1.5	2.0	dB
832.0 ... 862.0 MHz		—	1.5	2.2	dB
<b>Amplitude ripple (p-p)</b>	Δα				
832.0 ... 862.0 MHz		—	0.8	1.5	dB
<b>Input VSWR</b>					
832.0 ... 862.0 MHz		—	1.9	2.2	
<b>Output VSWR</b>					
832.0 ... 862.0 MHz		—	1.9	2.2	
<b>Absolute attenuation</b>	α				
0.3 ... 791.0 MHz		30.0	37.0	—	dB
791.0 ... 821.0 MHz		35.0	39.0	—	dB
925.0 ... 960.0 MHz		20.0	31.0	—	dB
1565.42 ... 1606.0 MHz		35.0	45.0	—	dB
1664.0 ... 1724.0 MHz		25.0	45.0	—	dB
1805.0 ... 1880.0 MHz		25.0	45.0	—	dB
2110.0 ... 2170.0 MHz		25.0	40.0	—	dB
2400.0 ... 2496.0 MHz		35.0	40.0	—	dB
2496.0 ... 2586.0 MHz		35.0	40.0	—	dB
2586.0 ... 2620.0 MHz		35.0	40.0	—	dB
2620.0 ... 2690.0 MHz		25.0	40.0	—	dB
3328.0 ... 3448.0 MHz		20.0	50.0	—	dB

1) in -15 °C to 60 °C


**Maximum ratings**

Storage temperature range	$T_{\text{stg}}$	-40/+85	°C	
DC voltage	$V_{\text{DC}}$	0	V	
ESD voltage	$V_{\text{ESD}}$	100 <sup>1)</sup>	V	machine model, 1 pulse
Input power	$P_{\text{IN}}$	13	dBm	continuous wave, 55°C , 50000h

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


**Transfer fonction (Narrow band)**

**Transfer fonction (Wide band)**



**References**

<b>Type</b>	B9485
<b>Ordering code</b>	B39851B9485P810
<b>Marking and package</b>	C61157-A8-A3
<b>Packaging</b>	F61074-V8237-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B9485_NB.S2P B9485_WB.S2P
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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."
<b>Moldability</b>	Before using in overmolding environment, please contact your EPCOS sales office.
<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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