

# **SAW Components**

Rx SAW filter LTE Band 17

Series/type: B9480

Ordering code: B39741B9480M410

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Version: 2.1

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SAW Components B9480

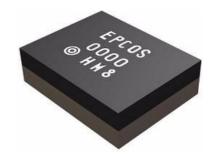
Rx SAW filter 740.0 MHz

**Data sheet** 



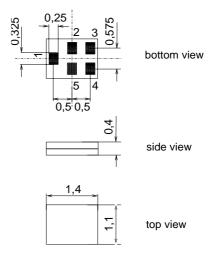
### **Application**

- Rx SAW filter for telephone LTE Band 17 system
- Usable band width 12MHz
- Unbalanced to balanced operation (50  $\Omega$ /100  $\Omega$ )



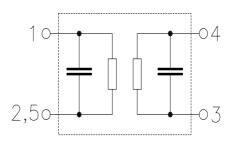
### **Features**

- Package size 1.4 x 1.1 mm², package height 0.4 mm
- RoHS compatible
- Approx. weight 0.035 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitive Level 3



# Pin configuration

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





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### **Characteristics**

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

		min.	typ. @ 25 °C	max.	
Nominal frequency	f <sub>N</sub>	_	740.0	_	MHz
Maximum insertion attenuation 734.0 746.0 MHz	$\alpha_{max}$	_	2.2	3.5	dB
<b>Amplitude ripple</b> (p-p) 734.0 746.0 MHz	Δα	_	0.8	1.8	dB
Input VSWR 734.0 746.0 MHz		_	1.3	2.0	
Output VSWR 734.0 746.0 MHz		_	1.4	2.0	
<b>CMRR</b> ( $ S_{21}$ - $S_{31}  /  S_{21}$ + $S_{31} $ ) 734.0 746.0 MHz		_	40	23	dB
Absolute attenuation	α				
30.0 686.0 MHz		50	68	_	dB
704.0 716.0 MHz 716.0 722.0 MHz		52 40	57 45	_	dB dB
716.0 722.0 MHz 722.0 724.0 MHz		30	45 45		dB
724.0 725.0 MHz		25	45	_	dB
725.0 728.0 MHz		15	45	_	dB
777.0 793.0 MHz		46	53	_	dB
793.0 1438.0 MHz		40	66	_	dB
1438.0 1462.0 MHz		40	69	_	dB
1468.0 1492.0 MHz		40	68	_	dB
1570.0 1610.0 MHz		50	75	_	dB
2124.0 2178.0 MHz		40	65	<u> </u>	dB
2202.0 2238.0 MHz		40	52	_	dB
2400.0 2484.0 MHz		40	68	_	dB
2496.0 2690.0 MHz		40	66 65	_	dB
2936.0 2984.0 MHz 3400.0 3800.0 MHz		40 40	65 59	_	dB dB
4404.0 4476.0 MHz		40	59 57		dB
4900.0 5850.0 MHz		40	54		dB
5872.0 5968.0 MHz		40	54	<u> </u>	dB



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**Data sheet** 

## **Maximum ratings**

Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	1001)	V	M model, 1 pulse
ESD voltage	$V_{ESD}$	300 <sup>2)</sup>	V	HB model, 1 pulse
ESD voltage	$V_{ESD}$	600 <sup>3)</sup>	V	CD model, 1 pulse
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.

<sup>&</sup>lt;sup>2)</sup> acc. to JESD22-A114F (Human Body model), 1 negative & 1 positive pulses.

<sup>3)</sup> acc. to JESD22-C101-C(Charge Device model), 1 negative & 1 positive pulses.

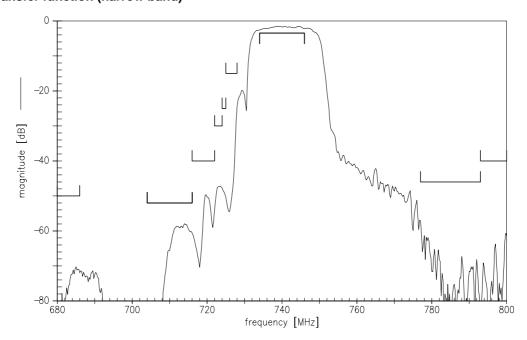


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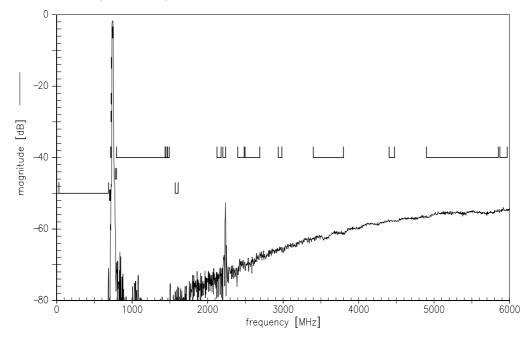
**Data sheet** 



# **Transfer function (narrow band)**



# Transfer function (wide band)





SAW Components	B9480
Rx SAW filter	740.0 MHz

**Data sheet** 



#### References

Туре	B9480
Ordering code	B39741B9480M410
Marking and package	C61157-A8-A1-*-27
Packaging	F61074-V8237-Z000-*-27
Date codes	L-1126
S-parameters	B9480_NB.s3p, B9480_WB.s3p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	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."
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  $\underline{www.epcos.com}$  .

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