



SAW Components

Rx SAW filter

LTE Band 17

Series/type:	B9480
Ordering code:	B39741B9480M410
Date:	January 09, 2013
Version:	2.2



SAW Components

B9480

Rx SAW filter

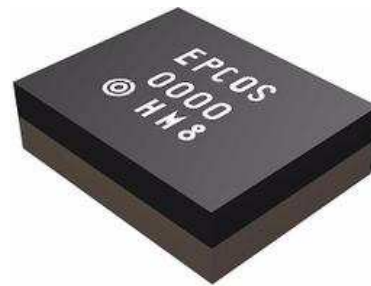
740.0 MHz

Data sheet

SMD

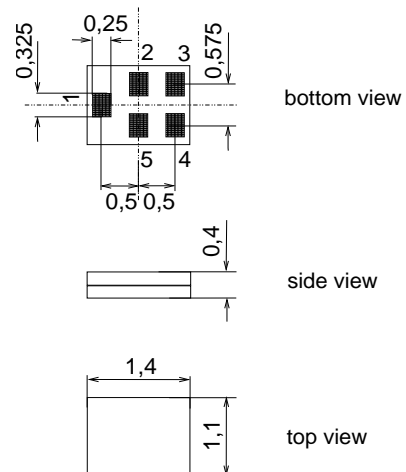
Application

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



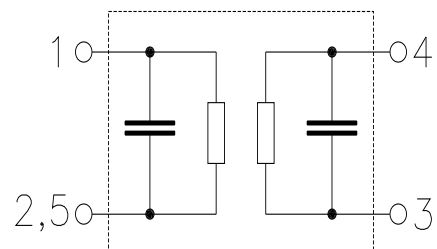
Features

- 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



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



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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.	
Nominal frequency	f_N	—	740.0	—	MHz
Maximum insertion attenuation 734.0 ... 746.0 MHz	α_{max}	—	2.2	3.5	dB
Amplitude ripple (p-p) 734.0 ... 746.0 MHz	$\Delta\alpha$	—	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	
CMRR ($S_{21}-S_{31} / S_{21}+S_{31}$) 734.0 ... 746.0 MHz		—	40	23	dB
Absolute attenuation	α				
30.0 ... 686.0 MHz		50	68	—	dB
704.0 ... 716.0 MHz		52	57	—	dB
716.0 ... 722.0 MHz		40	45	—	dB
722.0 ... 724.0 MHz		30	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	—	dB
2202.0 ... 2238.0 MHz		40	52	—	dB
2400.0 ... 2484.0 MHz		40	68	—	dB
2496.0 ... 2690.0 MHz		40	66	—	dB
2936.0 ... 2984.0 MHz		40	65	—	dB
3400.0 ... 3800.0 MHz		40	59	—	dB
4404.0 ... 4476.0 MHz		40	57	—	dB
4900.0 ... 5850.0 MHz		40	54	—	dB
5872.0 ... 5968.0 MHz		40	54	—	dB

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Maximum ratings

Storage temperature range	T_{stg}	-40/+125	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100 ¹⁾	V	M model, 1 pulse
ESD voltage	V_{ESD}	300 ²⁾	V	HB model, 1 pulse
ESD voltage	V_{ESD}	600 ³⁾	V	CD model, 1 pulse
Input power				
704.0 ... 716.0 MHz	P_{in}	15	dBm	T=85°C, 50 000 h

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

2) acc. to JESD22-A114F (Human Body model), 1 negative & 1 positive pulses.

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



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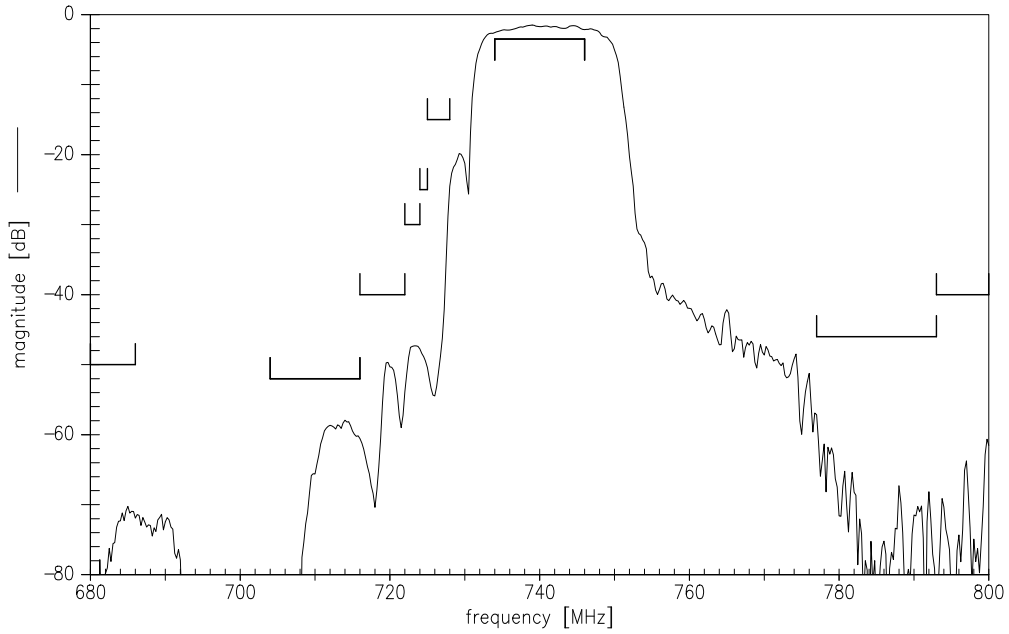
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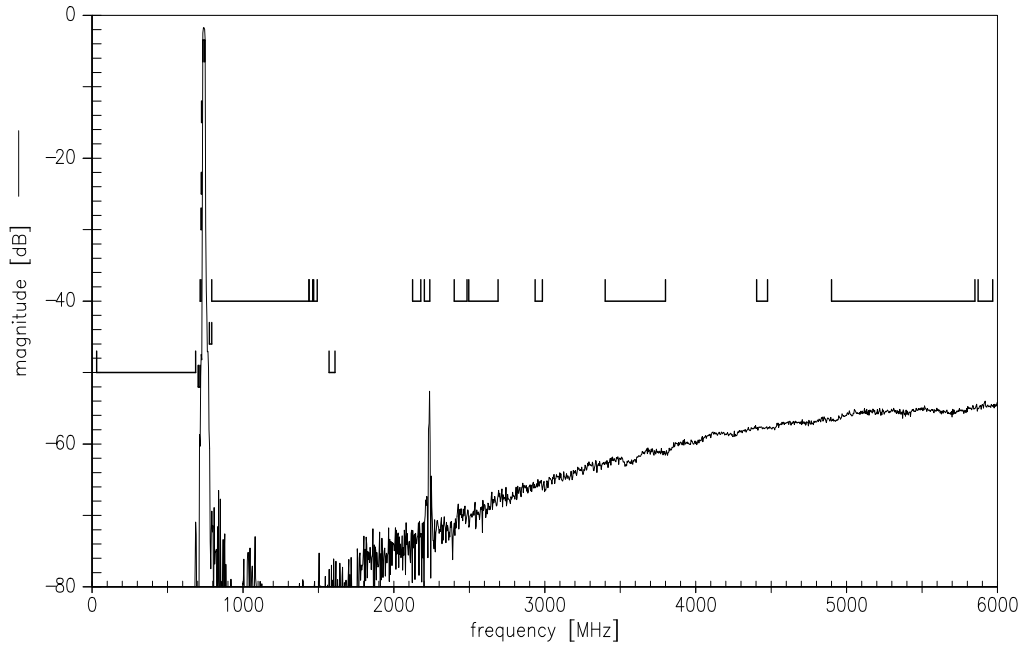
Data sheet



Transfer function (narrow band)



Transfer function (wide band)



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References

Type	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

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