



SAW Components

SAW Rx Filter

PCS

Series/type:	B9007
Ordering code :	B39202B9007E610
Date:	May 15, 2009
Version:	2.0

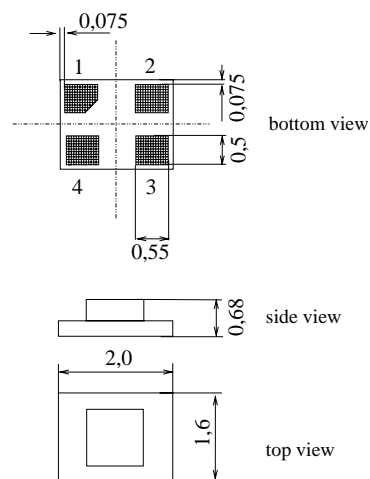
Application

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Suitable for GPRS Class 1 to 12



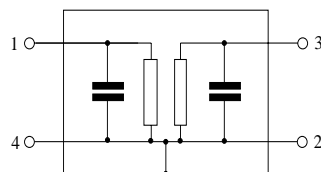
Features

- Package size 2.0 x 1.6 x 0.68 mm³
- Package code DCS4F
- RoHS compatible
- Approx. weight 0.007 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input, unbalanced
- 3 Output, unbalanced
- 2, 4 Case-ground





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1960.0 MHz

Data Sheet



Characteristics

Temperature range for specification: $T = +25\text{ }^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50\text{ }\Omega$

Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
Center frequency	f_C	—	1960.0	—	MHz
Maximum insertion attenuation					
1930.0 ... 1990.0 MHz	α_{\max}	—	2.8	3.3	dB
Amplitude ripple (p-p)					
1930.0 ... 1990.0 MHz	$\Delta\alpha$	—	1.0	1.6	dB
Input return loss					
1930.0 ... 1990.0 MHz		7.0	11.0	—	dB
Output return loss					
1930.0 ... 1990.0 MHz		7.0	12.0	—	dB
Attenuation	α				
10.0 ... 1700.0 MHz		30	41	—	dB
1700.0 ... 1910.0 MHz		20	24	—	dB
2050.0 ... 2400.0 MHz		22	26	—	dB
2400.0 ... 4000.0 MHz		30	36	—	dB
4000.0 ... 6000.0 MHz		22	29	—	dB



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Data Sheet



Characteristics

Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$

Terminating source impedance: $Z_S = 50\ \Omega$

Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ.	max.	
Center frequency	f_C	—	1960.0	—	MHz
Maximum insertion attenuation					
1930.0 ... 1990.0 MHz	α_{\max}	—	2.9	3.5	dB
Amplitude ripple (p-p)					
1930.0 ... 1990.0 MHz	$\Delta\alpha$	—	1.2	1.8	dB
Input return loss					
1930.0 ... 1990.0 MHz		7.0	9.0	—	dB
Output return loss					
1930.0 ... 1990.0 MHz		7.0	10.0	—	dB
Attenuation	α				
10.0 ... 1700.0 MHz		30	41	—	dB
1700.0 ... 1910.0 MHz		20	24	—	dB
2050.0 ... 2400.0 MHz		22	26	—	dB
2400.0 ... 4000.0 MHz		30	36	—	dB
4000.0 ... 6000.0 MHz		22	29	—	dB

**SAW Components****B9007****SAW Rx Filter****1960.0 MHz****Data Sheet****Maximum ratings**

Operable temperature range	T	−40/+85	°C	machine model, 1 pulse
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	peak power of GSM signal, duty cycle 4:8
Input power at				
GSM850, GSM900	P _{IN}	15	dBm	
GSM1800, GSM1900	P _{IN}	12	dBm	
Tx bands				

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



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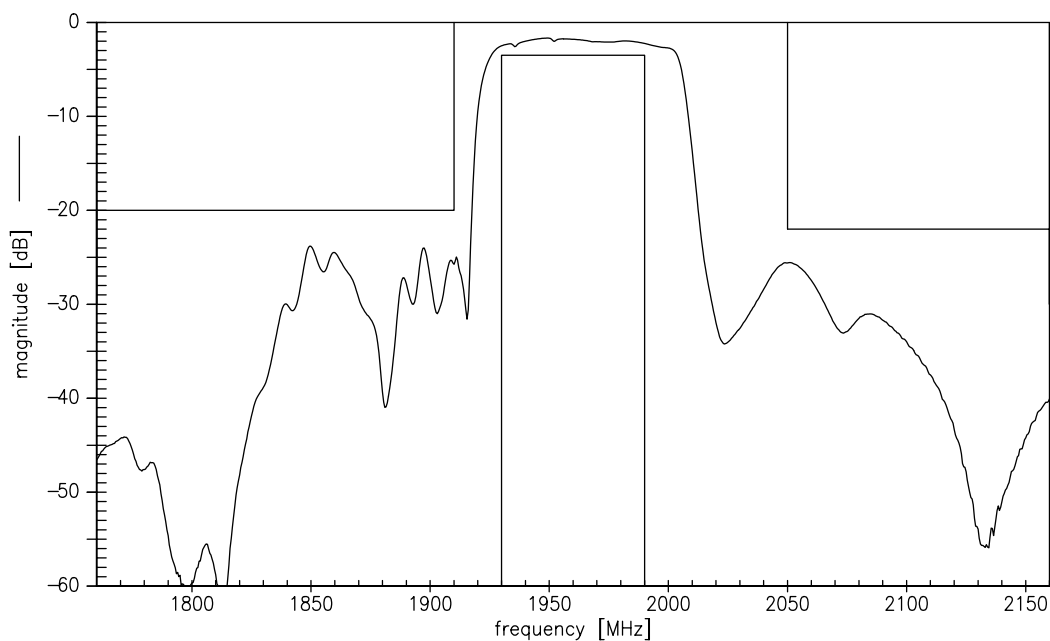
SAW Rx Filter

1960.0 MHz

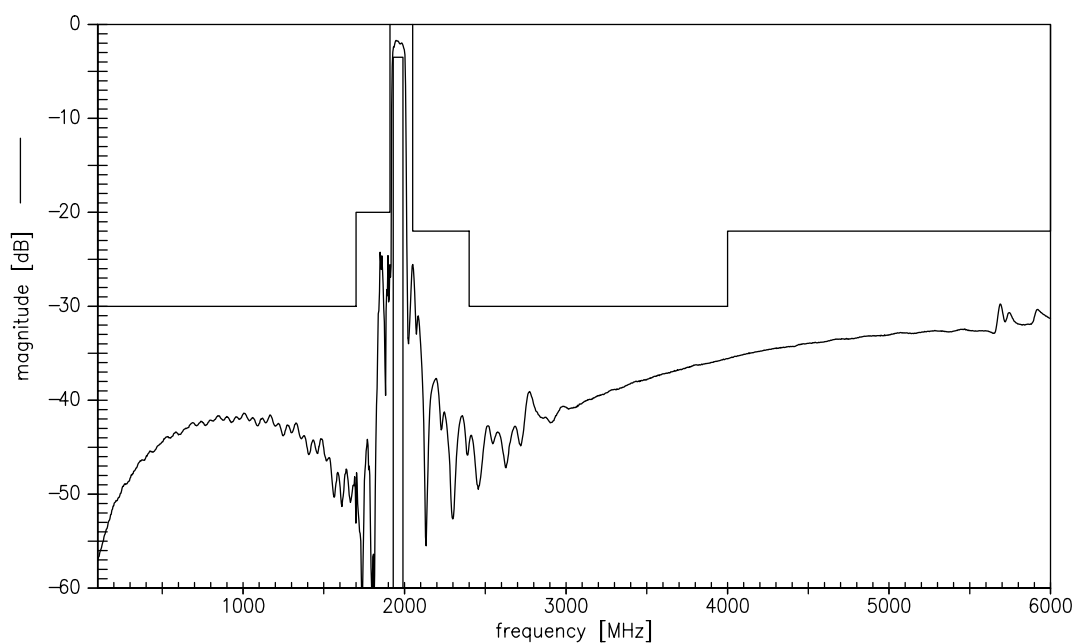
Data Sheet

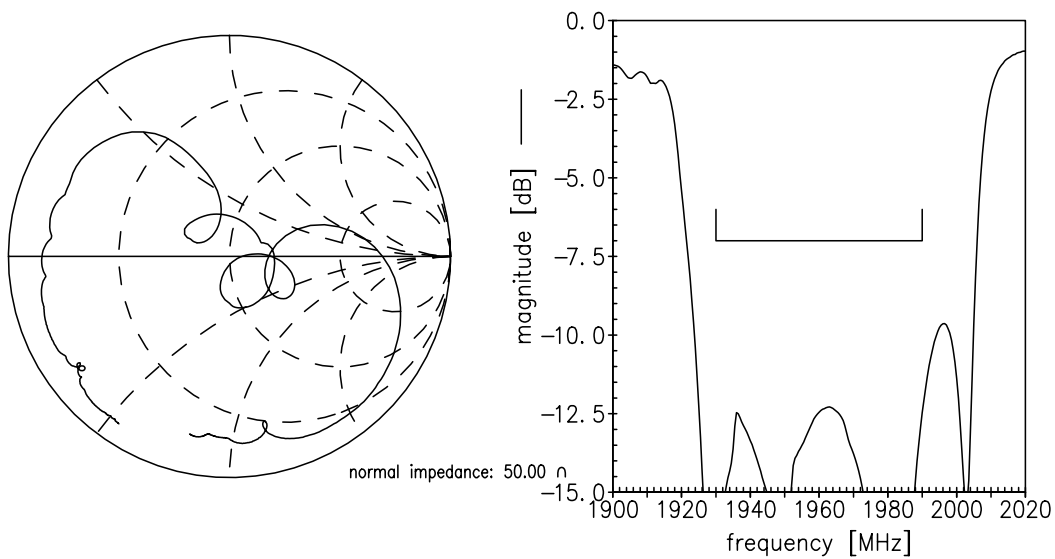
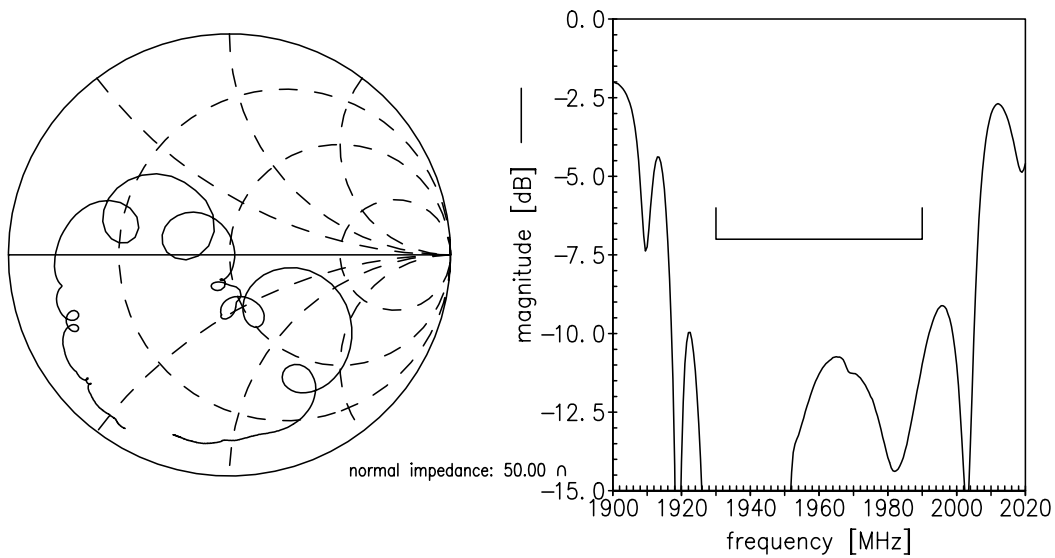


Transfer function (narrowband)



Transfer function (wideband)







SAW Components	B9007
SAW Rx Filter	1960.0 MHz
Data Sheet	SMD

References

Type	B9007
Ordering code	B39202B9007E610
Marking and package	C61157-A7-A113
Packaging	F61074-V8152-Z000
Date codes	L_1126
S-parameters	B9007_NB.s2p B9007_WB.s2p
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."

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

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