



SAW Components

SAW IF filter

Series/type:	B5105
Ordering code:	B39301B5105U310
Date:	Nov 05, 2008
Version:	2.0

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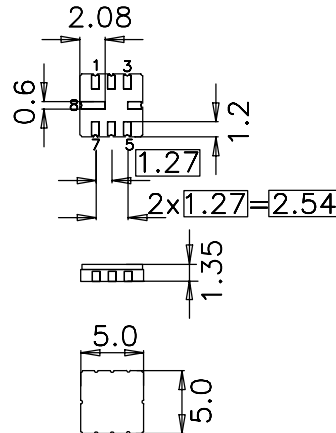
Application

- SAW Filter for Wi-Max Terminal and BTS
- Usable passband 11 MHz
- Low Loss
- Balanced operation



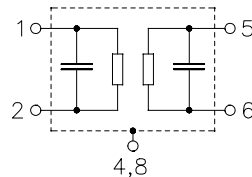
Features

- Package size 5.0 x 5.0 x 1.35 mm³
- Package code QCC8C
- RoHS compatible
- Approx. weight 0.1 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 1, 2 Input
- 5, 6 Output
- 4, 8 Case Ground
- 3, 4, 7, 8 To be grounded



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



Data Sheet

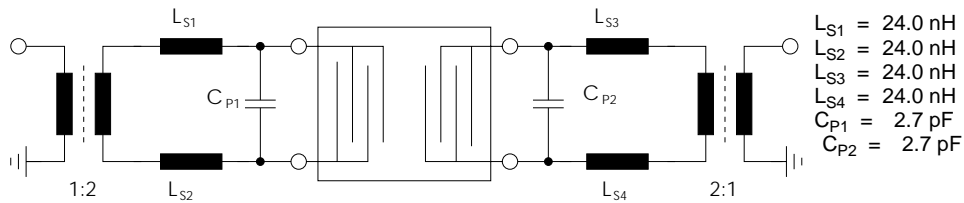


Characteristics

Operating temperature range: $T = -40$ to 85 °C
 Terminating source impedance: $Z_S = 100 \Omega$ and matching network
 Terminating load impedance: $Z_L = 100 \Omega$ and matching network

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	302.4	—	MHz
Maximum insertion attenuation (including matching network)	α_{max}	—	2.1	3.0	dB
Amplitude ripple (p-p) 296.9 MHz ... 307.9 MHz	$\Delta\alpha$	—	0.35	1.0	dB
Attenuation	α				
1.0 MHz ... 202.4 MHz		50	60	—	dB
202.4 MHz ... 252.2 MHz		30	60	—	dB
352.4 MHz ... 402.4 MHz		30	50	—	dB
402.4 MHz ... 450.0 MHz		45	55	—	dB
450.0 MHz ... 1500.0 MHz		40	60	—	dB
Input VSWR 296.9 MHz ... 307.9 MHz		—	1.3 : 1	1.8 : 1	
Output VSWR 296.9 MHz ... 307.9 MHz		—	1.3 : 1	1.8 : 1	
Temperature coefficient of frequency	TC_f	—	- 64	—	ppm/K

Matching network to 100 Ω



Element values depend upon board layout



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SAW IF filter

302.4 MHz

Data Sheet



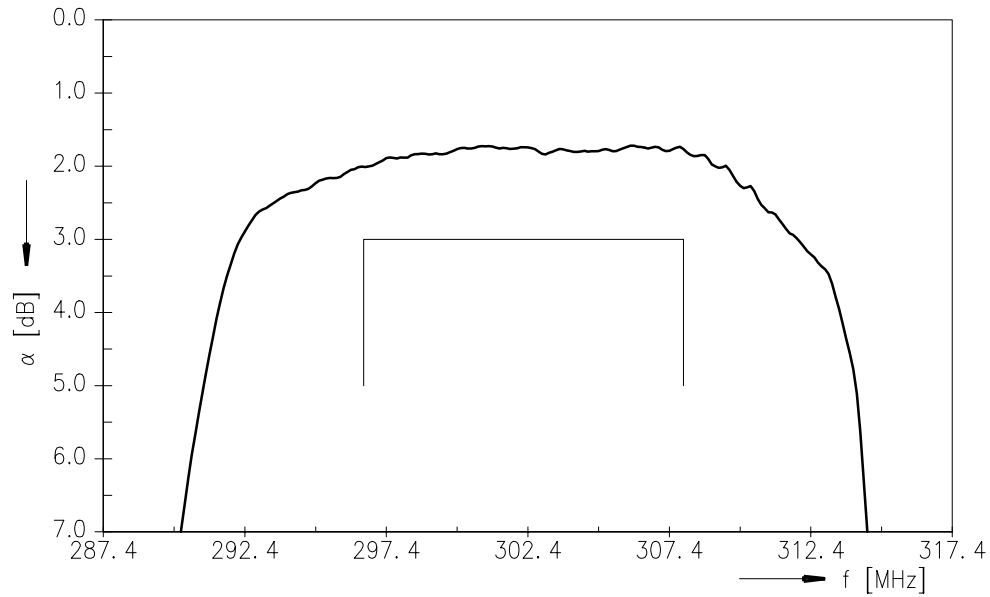
Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{sta}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input power	P _{IN}	5	dBm	

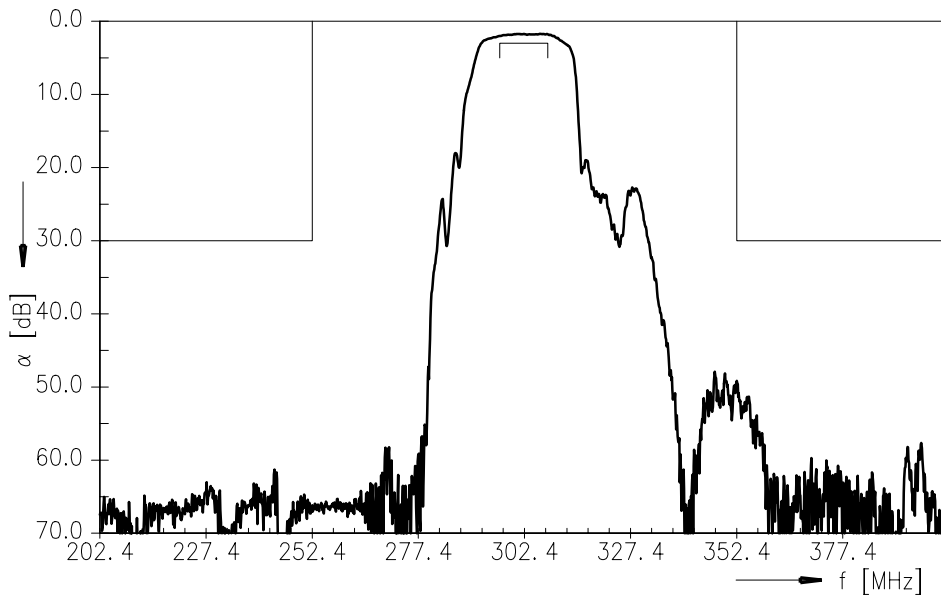
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Transfer function



Transfer function (wideband)



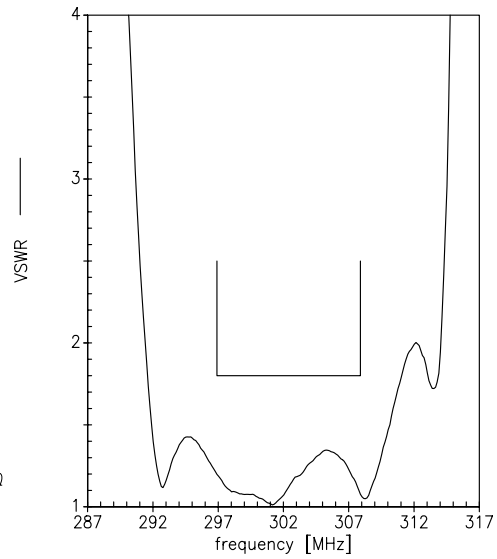
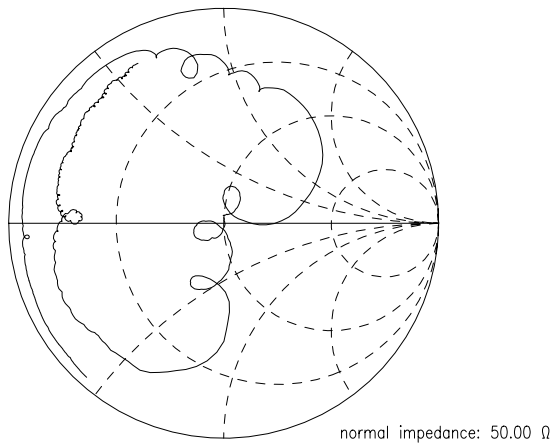
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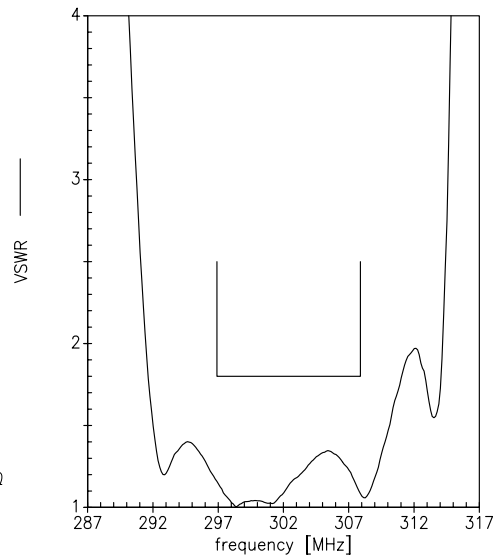
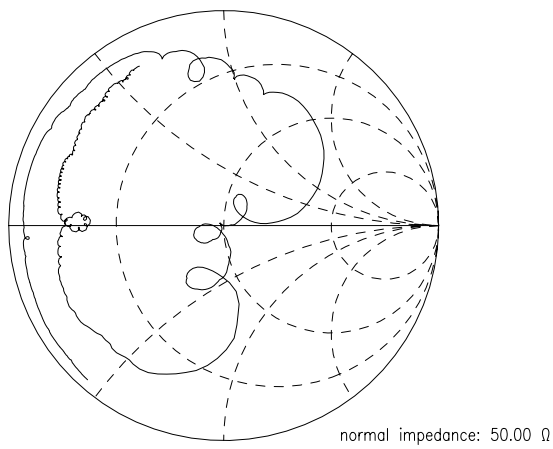


Smith charts

S₁₁ function



S₂₂ function



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SAW IF filter **302.4 MHz**

Data Sheet



References

Type	B5105
Ordering code	B39301B5105U310
Marking and package	C61157-A7-A56
Packaging	F61074-V8169-Z000
Date codes	L_1126
S-parameters	LI11A_NB.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 .

**Published by EPCOS AG
Surface Acoustic Wave Components Division
P.O. Box 80 17 09, 81617 Munich, GERMANY**

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7 Nov 05, 2008



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