



SAW Components

SAW filter

Trunked Radio

Series/type:	B3822
Ordering code:	B39391B3822Z810
Date:	April 06, 2009
Version:	2.0

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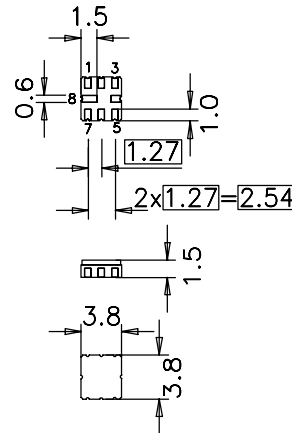
Application

- Low-loss filter (Rx) for Trunked Radio
- Low amplitude ripple
- No matching required for operation at 50 Ω
- Usable passband of 5 MHz



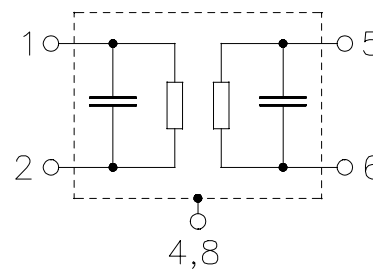
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code QCC8B
- RoHS compatible
- Approximate weight 0.07 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)



Pin configuration

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



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



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392.50 MHz

Data sheet



Characteristics

Temperature range for specification: $T = +15\text{ °C to }+35\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	392.5	—	MHz
Maximum insertion attenuation	α_{max}				
390.0 ... 395.0 MHz		—	2.7	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
390.0 ... 395.0 MHz		—	0.6	1.4	dB
VSWR					
390.0 ... 395.0 MHz		—	1.65:1	2.0:1	
Attenuation	α				
0.1 ... 350.0 MHz		40	60	—	dB
350.0 ... 385.0 MHz		25	35	—	dB
430.0 ... 885.0 MHz		40	45	—	dB
885.0 ... 2000.0 MHz		20	25	—	dB

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Characteristics

Temperature range for specification: $T = -30\text{ °C to }+70\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	392.5	—	MHz
Maximum insertion attenuation	α_{max}				
390.0 ... 395.0 MHz		—	3.0	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
390.0 ... 395.0 MHz		—	0.8	2.0	dB
VSWR					
390.0 ... 395.0 MHz		—	1.65:1	2.0:1	
Attenuation	α				
0.1 ... 350.0 MHz		40	60	—	dB
350.0 ... 385.0 MHz		25	35	—	dB
430.0 ... 885.0 MHz		40	45	—	dB
885.0 ... 2000.0 MHz		20	25	—	dB

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Maximum ratings

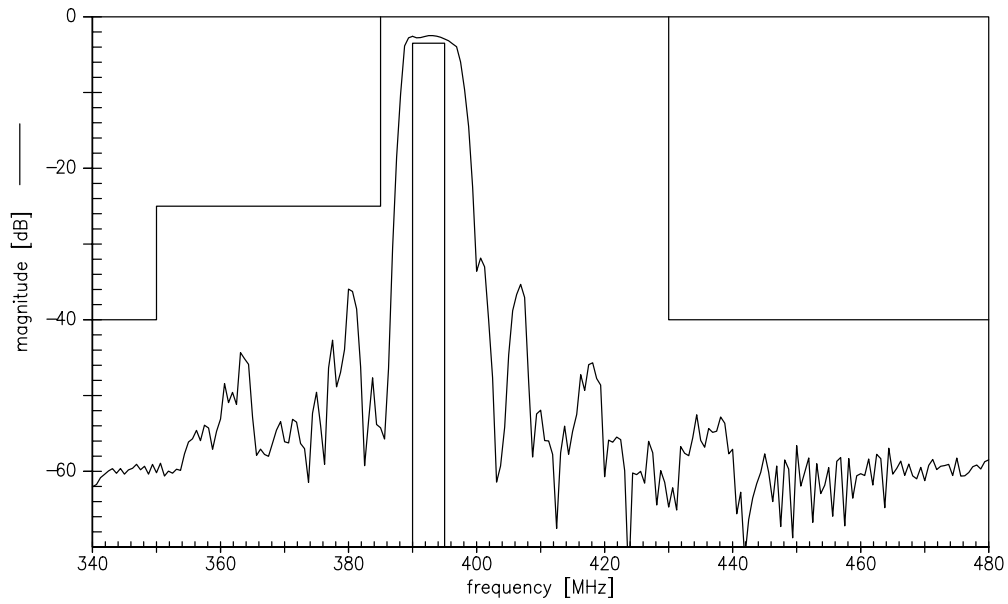
Operable temperature range	T	-30/+70	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 1 pulse
Input power at 390.0 ... 395.0	P _{IN}	10	dBm	CW

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

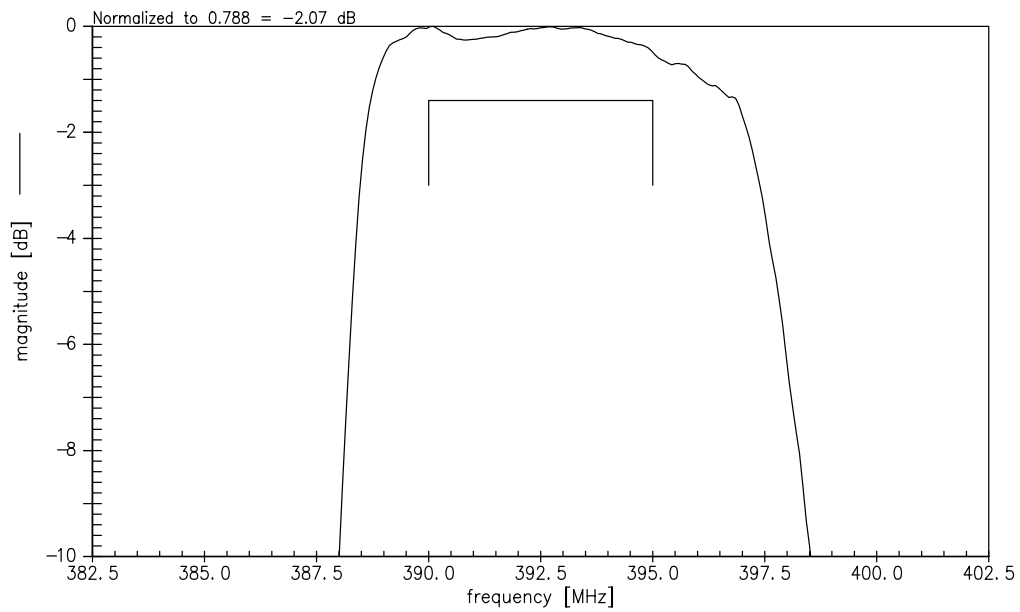
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Transfer function



Normalized transfer function (passband; +15°C to 35°C)



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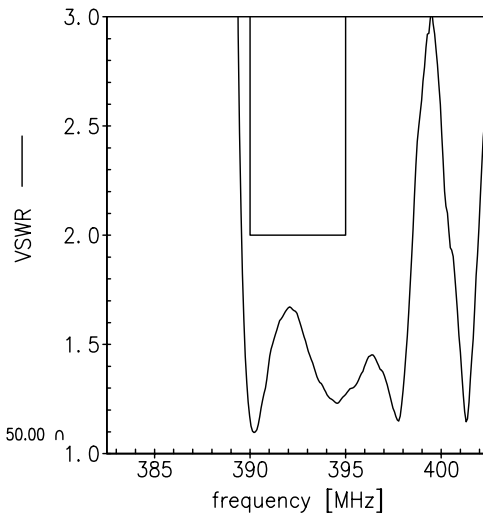
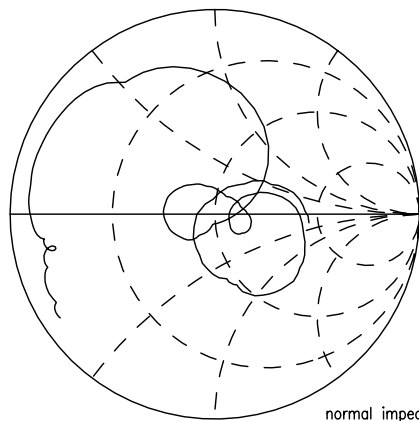


Data sheet

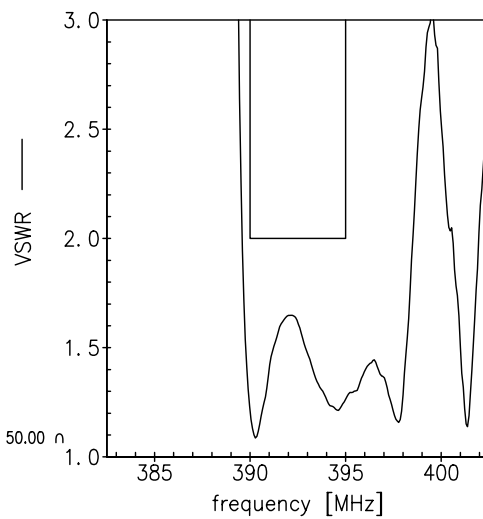
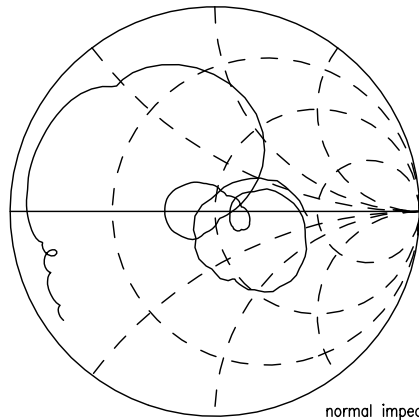


Smith charts

S₁₁ function



S₂₂ function



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References

Type	B3822
Ordering code	B39391B3822Z810
Marking and package	C61157-A7-A46
Packaging	F61074-V8167-Z000
Date codes	L_1126
S-parameters	B3822_NB.s2p B3822_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."

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

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8 April 06, 2009



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