



SAW Components

SAW filter

Trunked Radio

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



SAW Components

B3822

SAW filter

392.50 MHz

Data sheet



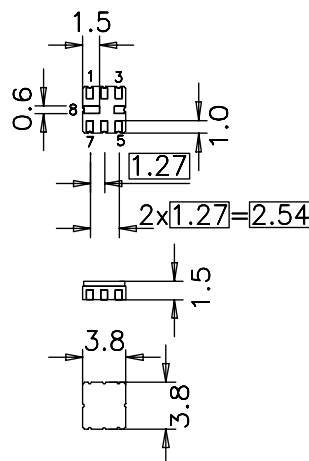
Application

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



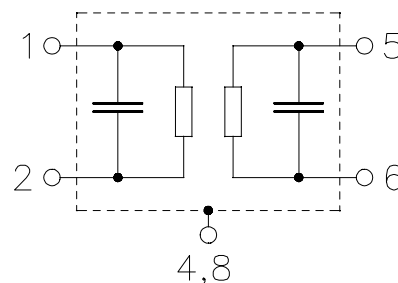
Features

- 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





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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	$\alpha_{\max}$	—	2.7	3.5	dB
	390.0 ... 395.0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.6	1.4	dB
	390.0 ... 395.0 MHz				
VSWR		—	1.65:1	2.0:1	
	390.0 ... 395.0 MHz				
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	$\alpha_{\max}$				
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	machine model, 1 pulse
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	
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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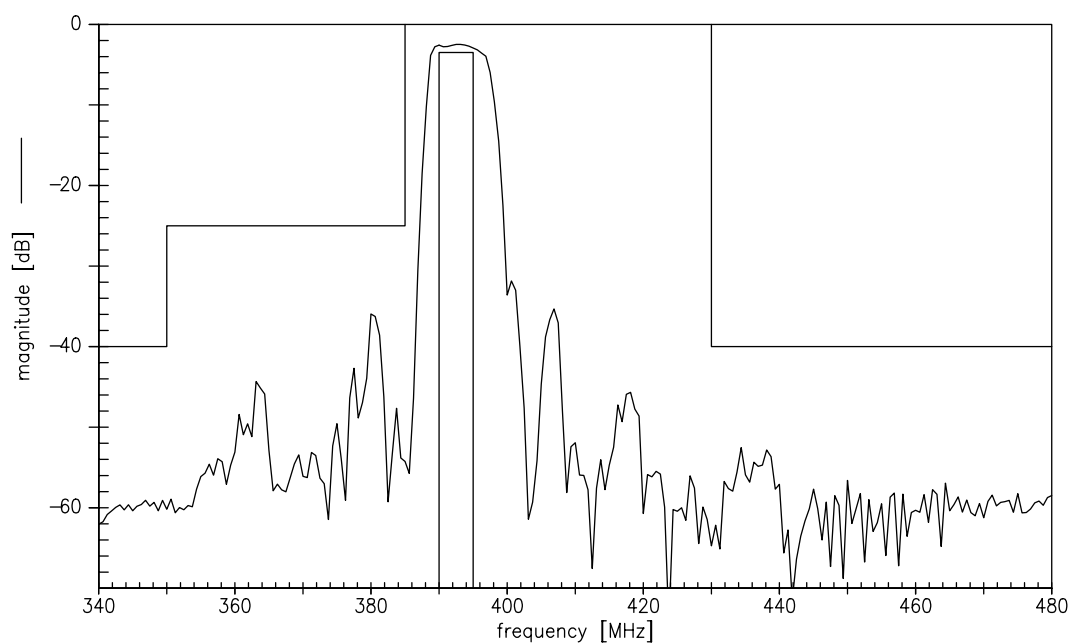
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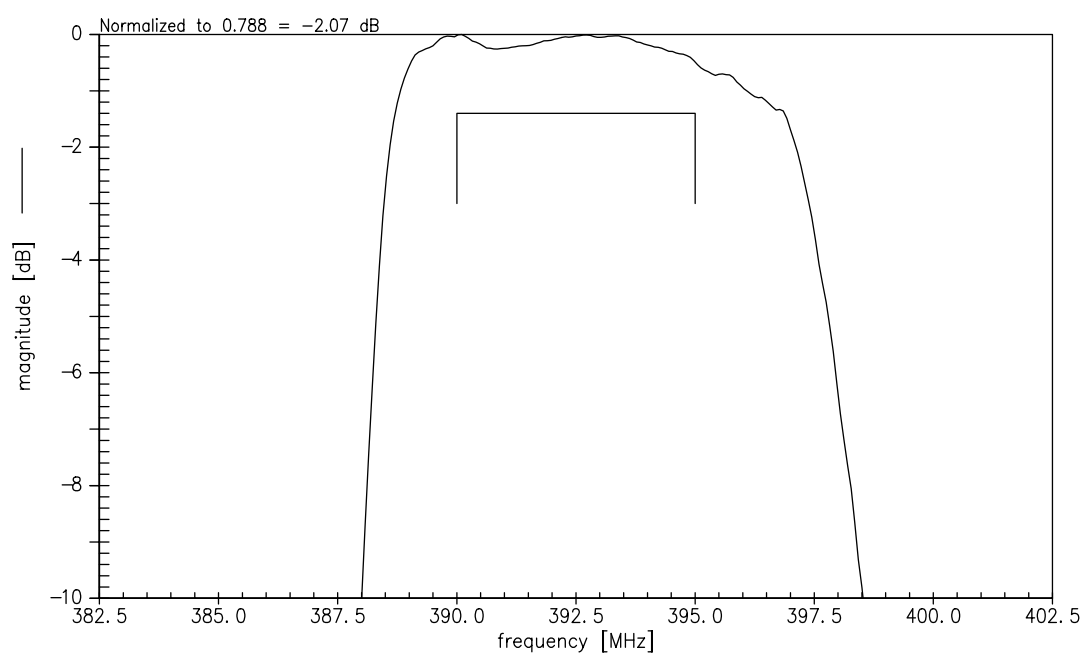
Data sheet



Transfer function



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





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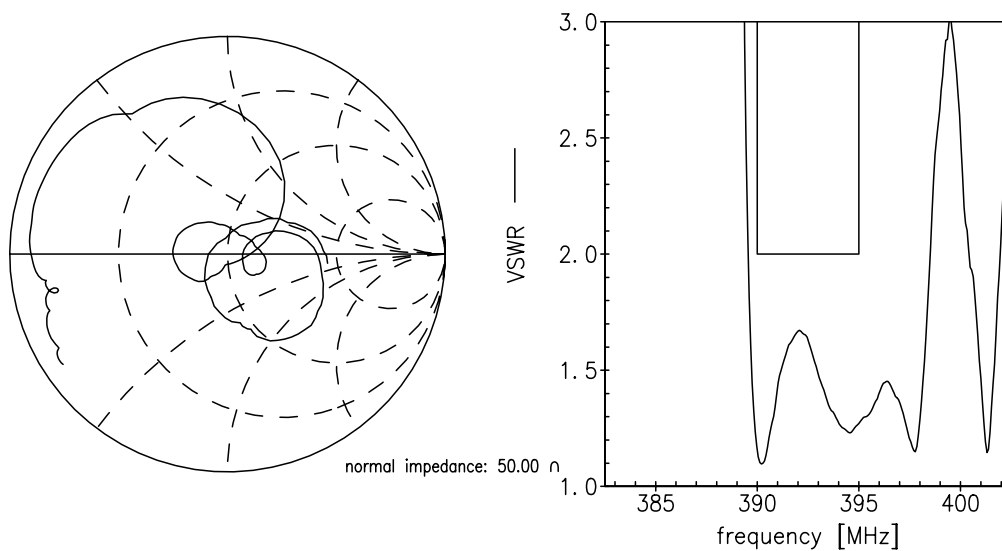
392.50 MHz

Data sheet

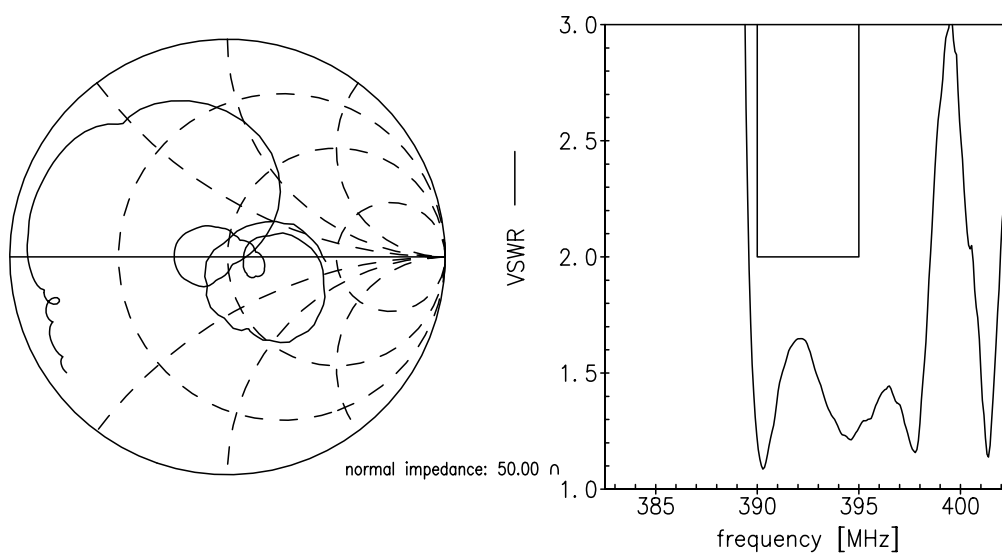


Smith charts

S_{11} function



S_{22} 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."

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

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