SAW Components

SAW filter

TETRA

Series/type:	**B5132**
Ordering code:	**B39271B5132U310**
Date:	March 29, 2010
Version:	2.0

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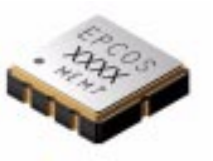
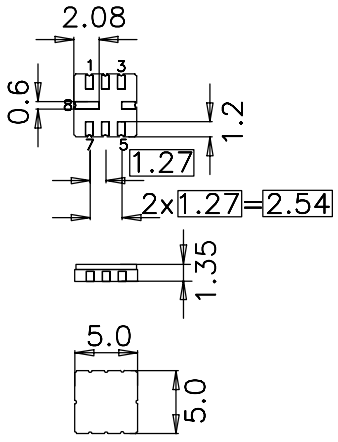
Application

- RF filter for 2-way-radio (TETRA)
- Usable passband of 15MHz
- Unbalanced to Unbalanced operation
- Low amplitude ripple
- No matching required for operation at 50 Ω



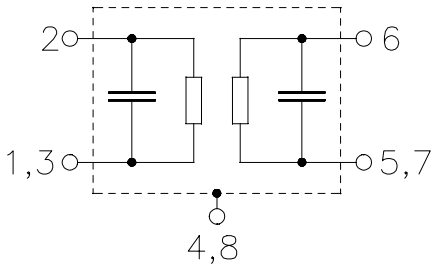
Features

- Package size 5.0 x 5.0 x 1.35 mm³
- Package code QCC8C
- RoHS compatible
- Approximate weight 0.10 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)



Pin configuration

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



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Data sheet SMD

Characteristics

Temperature range for specification: T = -30 °C to +70 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	267.5	—	MHz
Maximum insertion attenuation	α_{max}				
260.0 ... 275.0 MHz		—	2.2	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
260.0 ... 275.0 MHz		—	1.1	2.3	dB
VSWR					
260.0 ... 275.0 MHz		—	1.4	1.9	
Attenuation	α				
10.0 ... 226.0 MHz		28	52	—	dB
226.0 ... 250.0 MHz		11	14	—	dB
290.0 ... 320.0 MHz		14	24	—	dB
320.0 ... 340.0 MHz		20	39	—	dB
340.0 ... 1100.0 MHz		28	35	—	dB
1100.0 ... 1300.0 MHz		24	35	—	dB

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Maximum ratings

Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 1 pulse
Input power at				
260.0 ... 275.0	P_{IN}	10	dBm	CW

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

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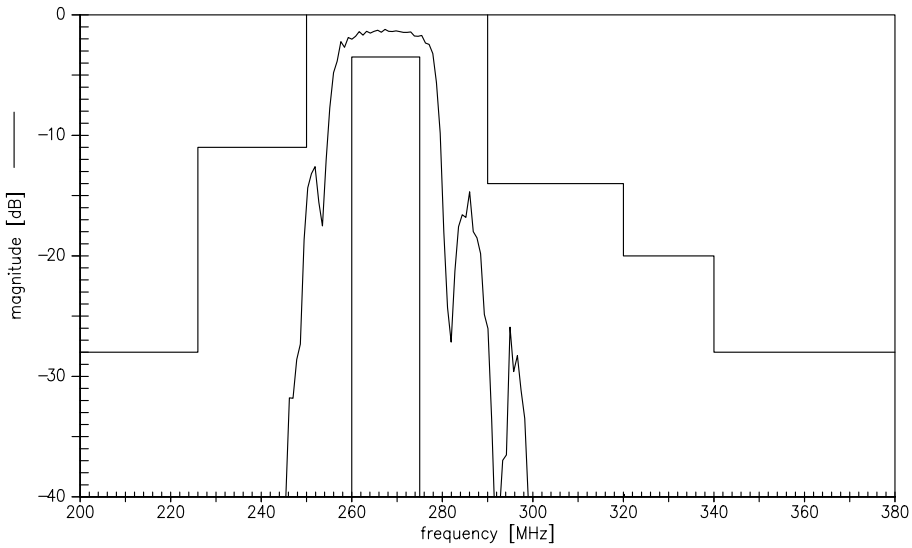
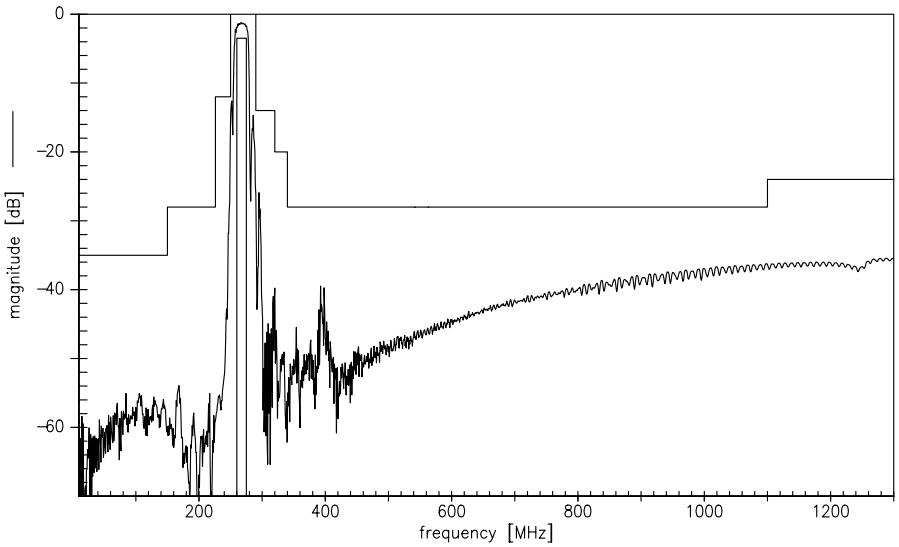
Transfer function



Transfer function (wideband)



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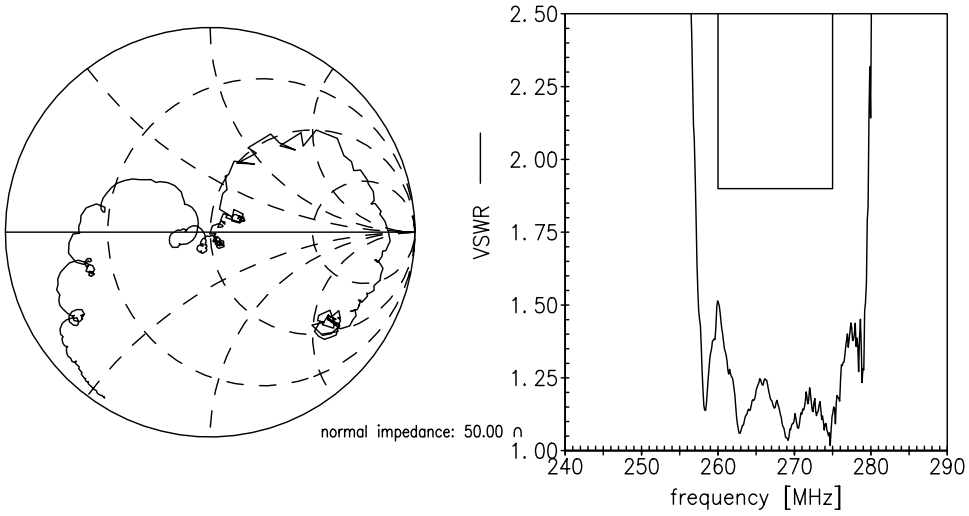
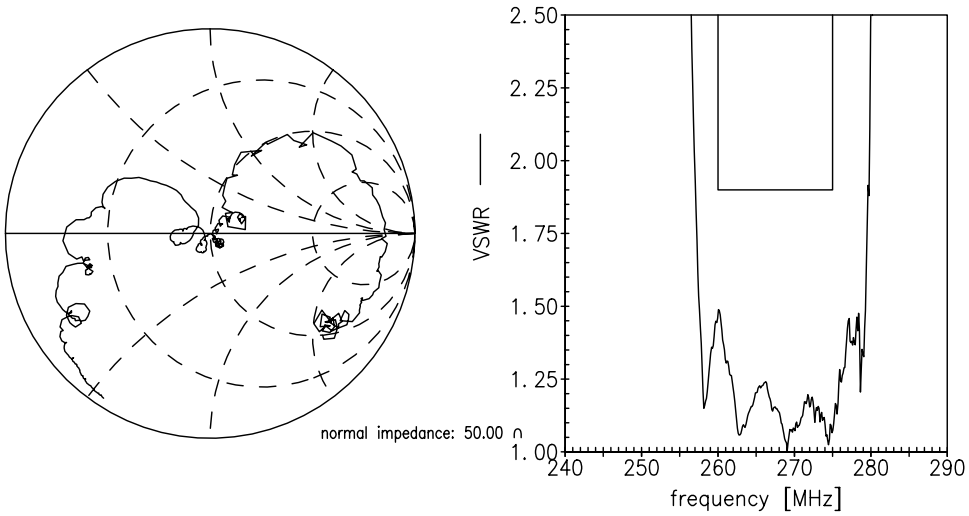
Smith charts

S_{11} function



S_{22} function



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References

Type	B5132
Ordering code	B39271B5132U310
Marking and package	C61157-A7-A56
Packaging	F61074-V8169-Z000
Date codes	L_1126
S-parameters	B5132_NB.s2p B5132_WB.s2p 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."

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