



SAW Components

SAW RF filter

TETRA Receiver

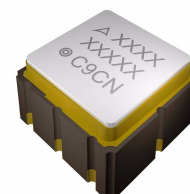
Series/type:	B5324
Ordering code:	B39421B5324Z810
Date:	Nov 03, 2014
Version:	2.1

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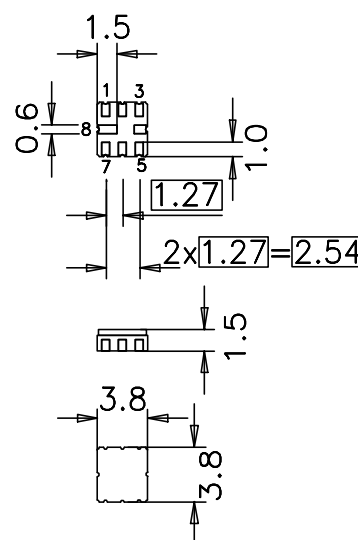
EPCOS AG is a TDK Group Company.

Application

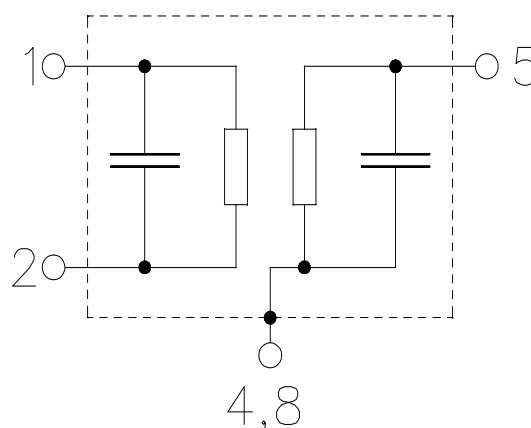
- Low-loss RF filter
- Unbalanced to balanced operation
- Usable passband 30 MHz
- No matching required for operation at 50 Ω


Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code QCC8B
- RoHS compatible
- Approximate weight 0.070 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 1**
- Filter surface passivated


Pin configuration

- 5 Input unbalanced
- 1, 2 Output balanced
- 3, 4, 6, 7, 8 To be grounded



Data sheet


Characteristics

Temperature range for specification: $T = -10\text{ °C to }+50\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	415.0	—	MHz
Maximum insertion attenuation	α_{max}	—	3.3	3.8	dB
400.0 ... 430.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1.5	2.0	dB
400.0 ... 430.0 MHz					
Input VSWR		—	1.6:1	2.0:1	
400.0 ... 430.0 MHz					
Output VSWR		—	1.7:1	2.0:1	
400.0 ... 430.0 MHz					
Absolute attenuation	α_{abs}				dB
10.0 ... 345.0 MHz		34	47	—	dB
345.0 ... 390.0 MHz		10	12	—	dB
440.0 ... 470.0 MHz		8	12	—	dB
470.0 ... 480.0 MHz		23	29	—	dB
480.0 ... 561.0 MHz		35	43	—	dB
561.0 ... 593.0 MHz		38	44	—	dB
593.0 ... 800.0 MHz		36	38	—	dB
800.0 ... 1200.0 MHz		30	34	—	dB
1200.0 ... 1924.0 MHz		25	31	—	dB
1924.0 ... 2046.0 MHz		25	31	—	dB
2046.0 ... 4000.0 MHz		15	22	—	dB

Maximum ratings

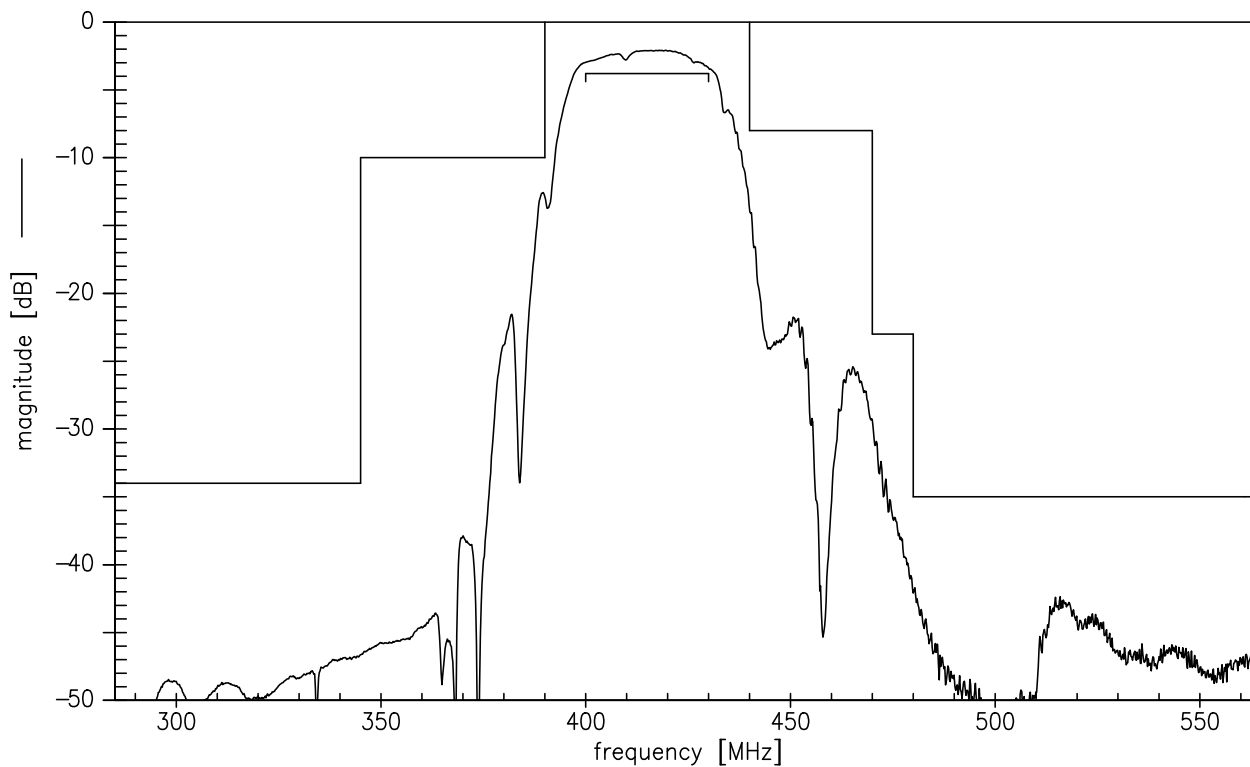
Operable temperature range	T	-10/+50	°C	Machine Model cw, 100000 h, 50 °C
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	
Input power 400.0 ... 430.0 MHz	P _{IN}	15	dBm	

¹⁾ acc. to JESD22-A115B (MM - Machine Model), 10 negative & 10 positive pulses

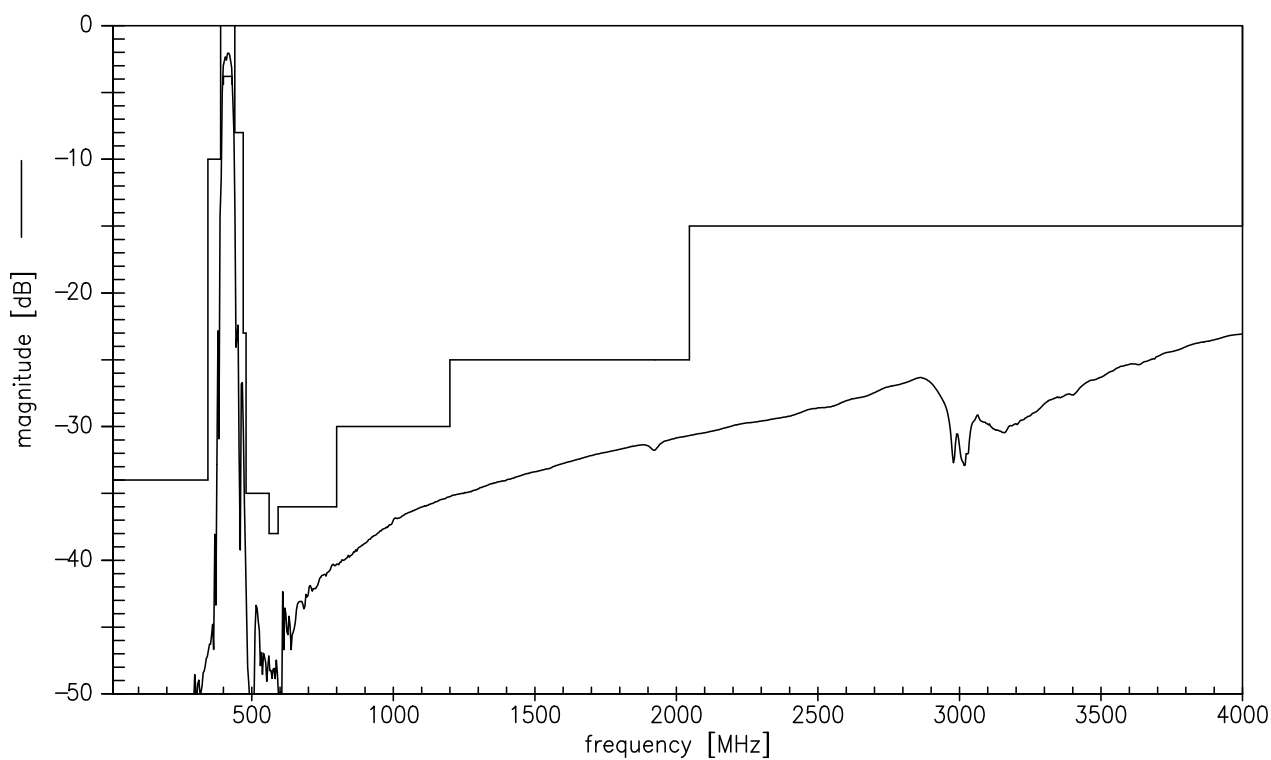
Data sheet



Transfer function (S21, narrowband)



Transfer function (S21, wideband)

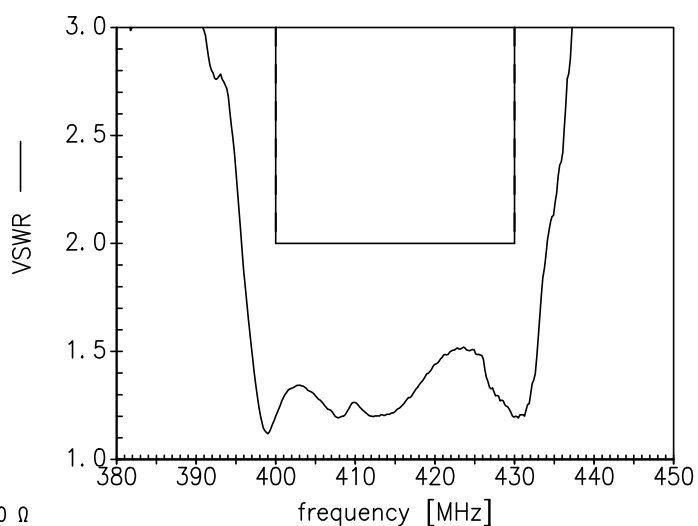
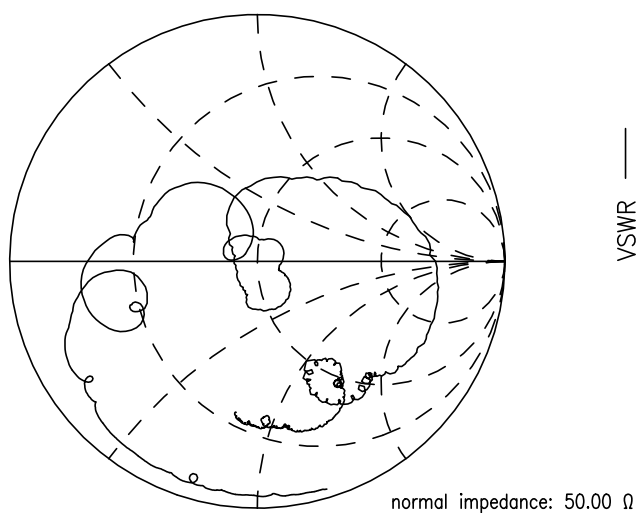


Data sheet

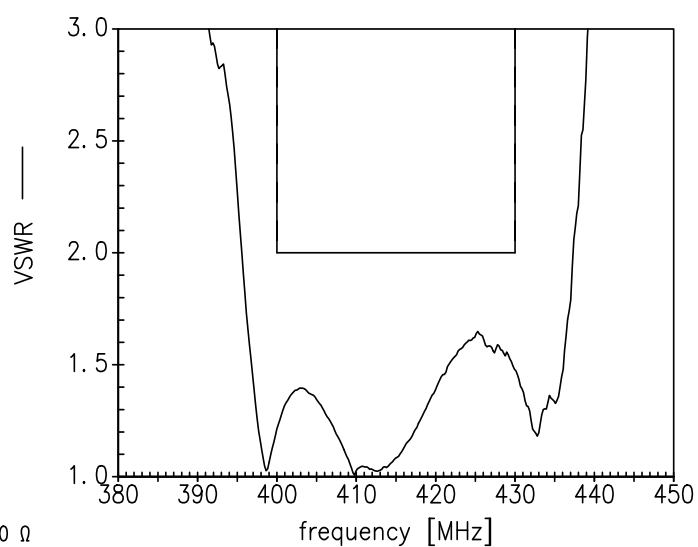
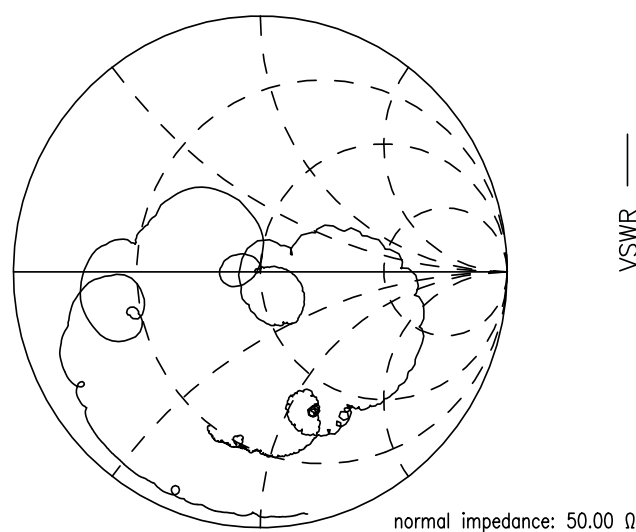
SMD

Smith charts

S₁₁ function



S₂₂ function



References

Type	B5324
Ordering code	B39421B5324Z810
Marking and package	C61157-A7-A46
Packaging	F61074-V8229-Z000
Date codes	L_1126
S-parameters	B5324_NB.s3p B5324_WB.s3p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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