SAW Components

SAW RF filter for base stations

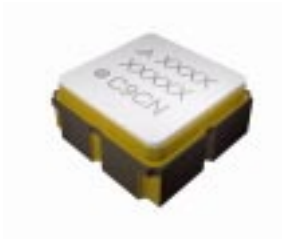
Band 18 uplink

Series/type:	**B5321**
Ordering code:	**B39821B5321U410**
Date:	Sep 18, 2014
Version:	2.0

EPCOS AG is a TDK Group Company.

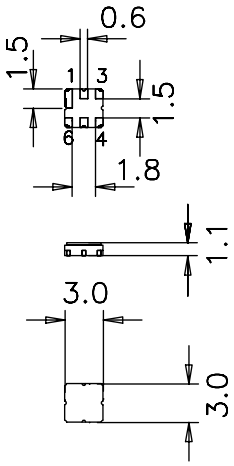
Application

- RF filter for LTE band 18 uplink
- Unbalanced to unbalanced operation
- Low amplitude ripple
- Usable passband 15 MHz
- No matching required for operation at 50 Ω



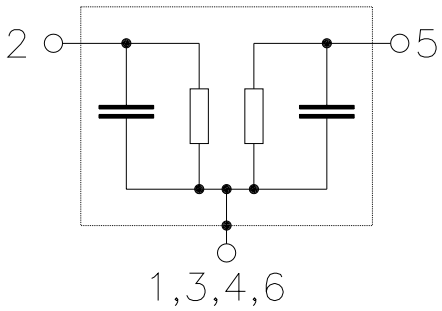
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel 1
- Filter surface passivated



Pin configuration

- 2 Input
- 5 Output
- 1, 3, 4, 6 To be grounded



Data sheet SMD

Characteristics

Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

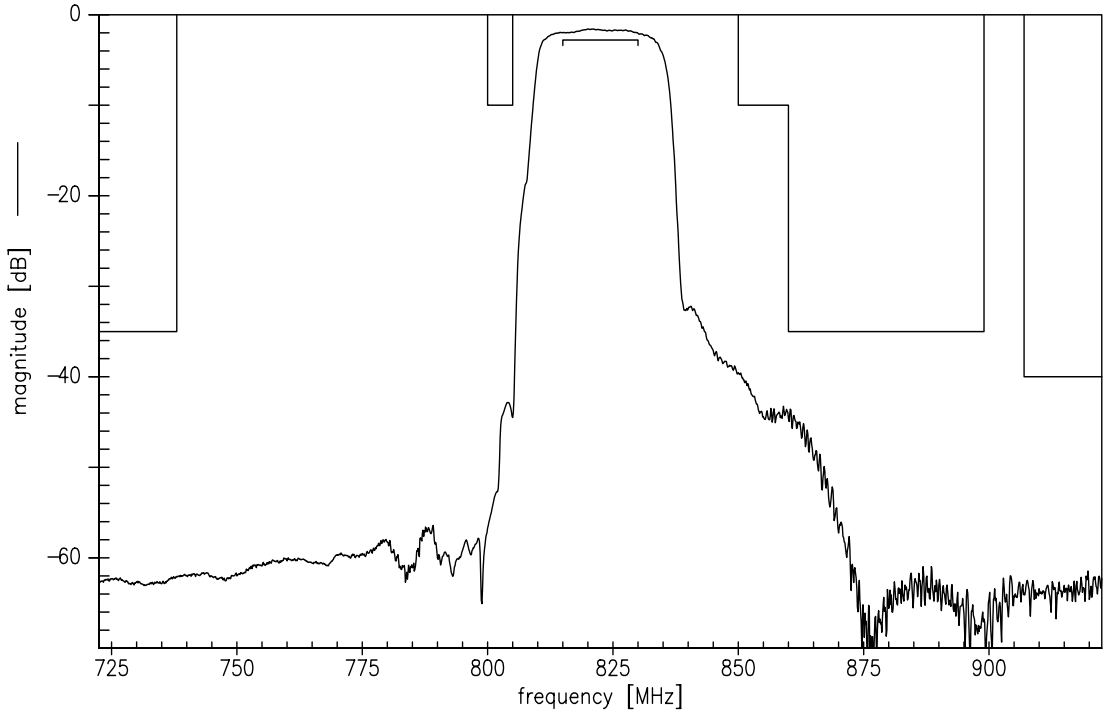
		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	822.5	—	MHz
Maximum insertion attenuation	α_{max}				
815.0 ... 830.0 MHz		—	2.1	2.8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
815.0 ... 830.0 MHz		—	0.6	1.2	dB
Input VSWR					
815.0 ... 830.0 MHz		—	1.6:1	2.0:1	
Output VSWR					
815.0 ... 830.0 MHz		—	1.6:1	2.0:1	
Absolute attenuation	α_{abs}				
10.0 ... 738.0 MHz		35	60	—	dB
800.0 ... 805.0 MHz		10	42	—	dB
850.0 ... 860.0 MHz		10	40	—	dB
860.0 ... 899.0 MHz		35	43	—	dB
907.0 ... 1091.0 MHz		40	55	—	dB
2000.0 ... 2600.0 MHz		25	42	—	dB
3000.0 ... 4000.0 MHz		15	35	—	dB

Maximum ratings

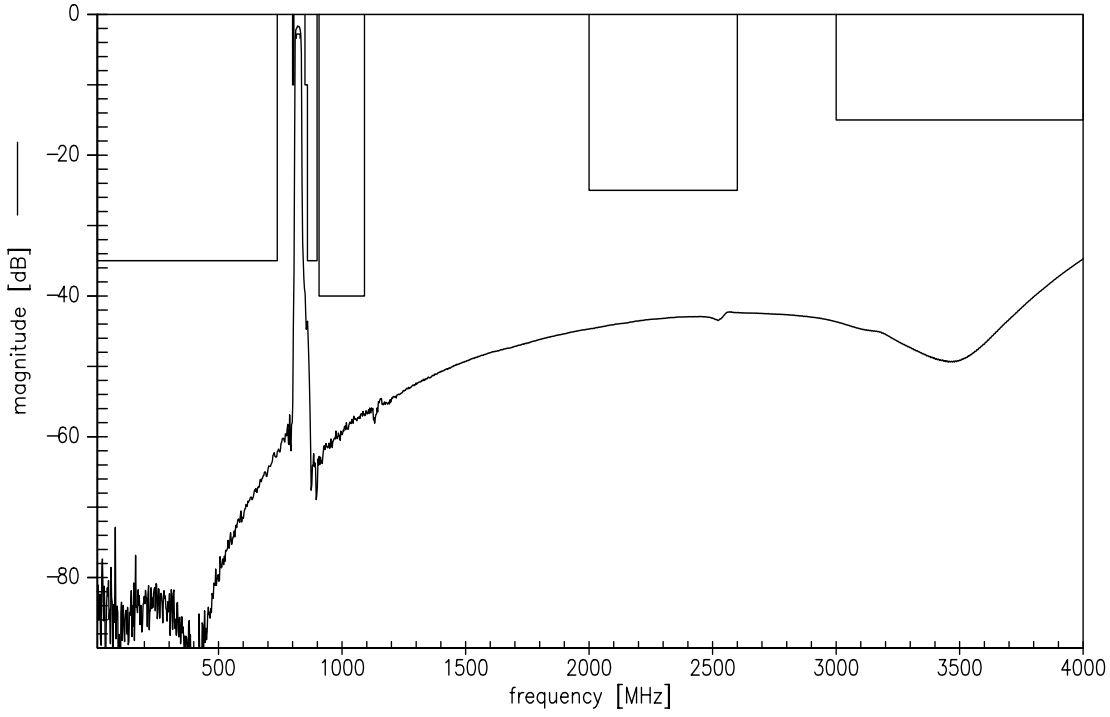
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	100[1)]	V	Machine Model
Input power	P_{IN}			
815.0 ... 830.0 MHz		20	dBm	cw

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

Transfer function (S21, narrowband)

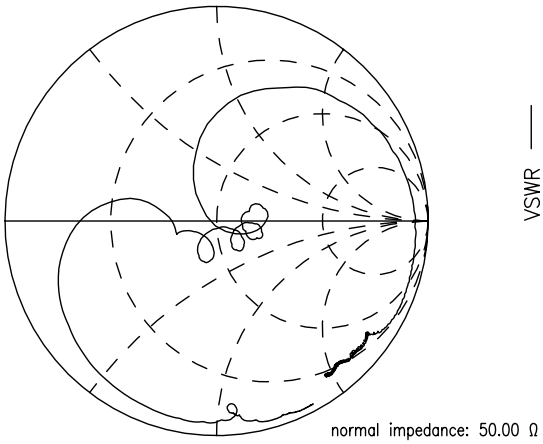


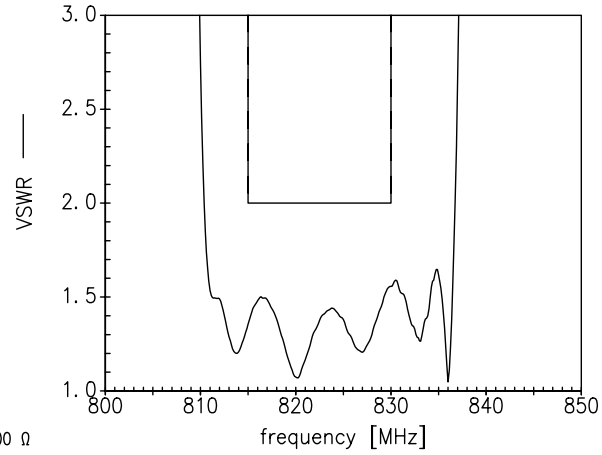
Transfer function (S21, wideband)



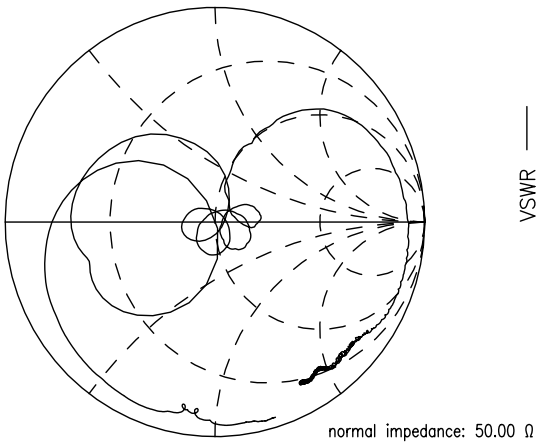
Smith charts

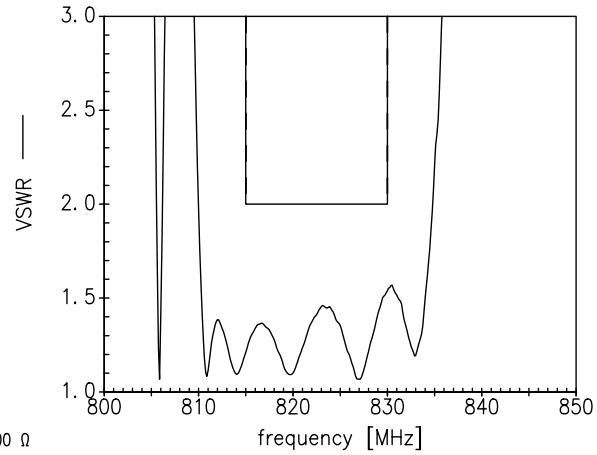
S_{11} function





S_{22} function





References

Type	B5321
Ordering code	B39821B5321U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B5321_NB.s2p B5321_WB.s2p 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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