



SAW Components

SAW RF filter

Diversity RX Band 13 & 17

Series/type:	B8321
Ordering code:	B39751B8321P810
Date:	August 27, 2013
Version:	2.0

© EPCOS AG 2015. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.

SAW Components

B8321

SAW RF filter

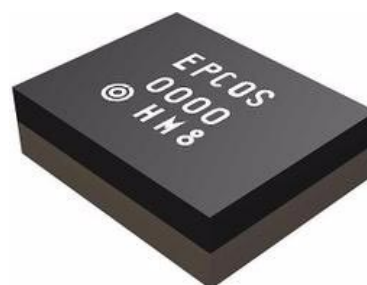
745.0 MHz

Data Sheet



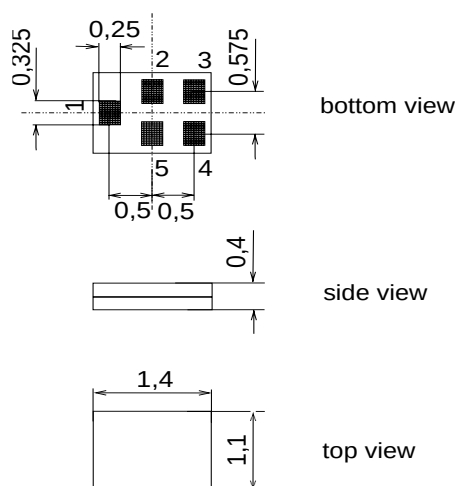
Application

- Low Loss RF filter for band 13&17, DRX path
- Usable band width 22 MHz
- Unbalanced to balanced operation (50 Ω /100 Ω)
- Very small size and low height



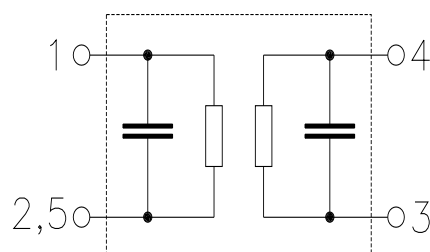
Features

- Package size 1.4 x 1.1 mm²
- Max. Package height 0.45 mm
- Tolerance of Package dimensions +/-0.1mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitivity Level 3



Pin configuration

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



SAW Components
B8321
SAW RF filter
745.0 MHz
Data Sheet

Characteristics

Temperature range for specification: $T = -20\text{ }^{\circ}\text{C}$ to $85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 100\text{ }\Omega$ (balanced)

					B8321			
					min.	typ. @ 25 °C	max.	
Nominal frequency	f_N				—	745.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$							
734.0 ... 746.0 MHz					—	2.2	2.9	dB
746.0 ... 756.0 MHz					—	2.0	2.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$							
734.0 ... 746.0 MHz					—	0.7	1.7	dB
746.0 ... 756.0 MHz					—	0.8	1.7	dB
Input VSWR								
734.0 ... 756.0 MHz					—	1.8	2.1	
Output VSWR								
734.0 ... 756.0 MHz					—	1.8	2.1	
Common mode rejection ratio								
734.0 ... 756.0 MHz					—	33	27	dB
Attenuation	α							
10.0 ... 704.0 MHz					47	80	—	dB
704.0 ... 716.0 MHz					47	55	—	dB
716.0 ... 722.0 MHz					38	60	—	dB
722.0 ... 725.0 MHz					25	40	—	dB
725.0 ... 728.0 MHz					11	18	—	dB
777.0 ... 787.0 MHz					47	52	—	dB
787.0 ... 4000.0 MHz					40	55	—	dB
4000.0 ... 6000.0 MHz					30	52	—	dB
Attenuation	α_{meam}							
722.0 ... 728.0 MHz					20	30	—	dB

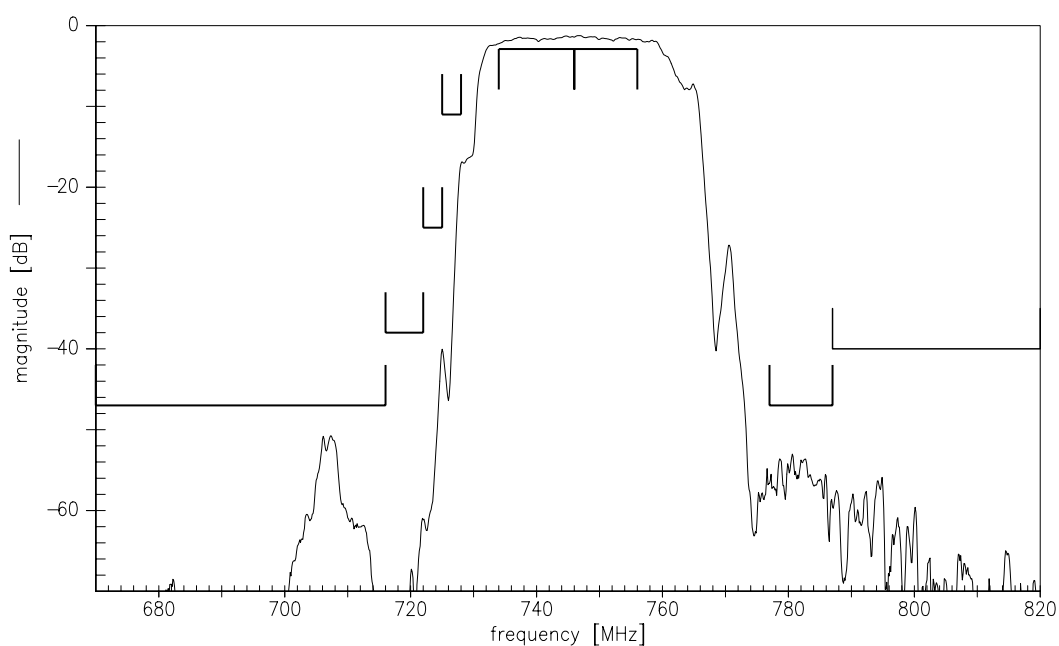
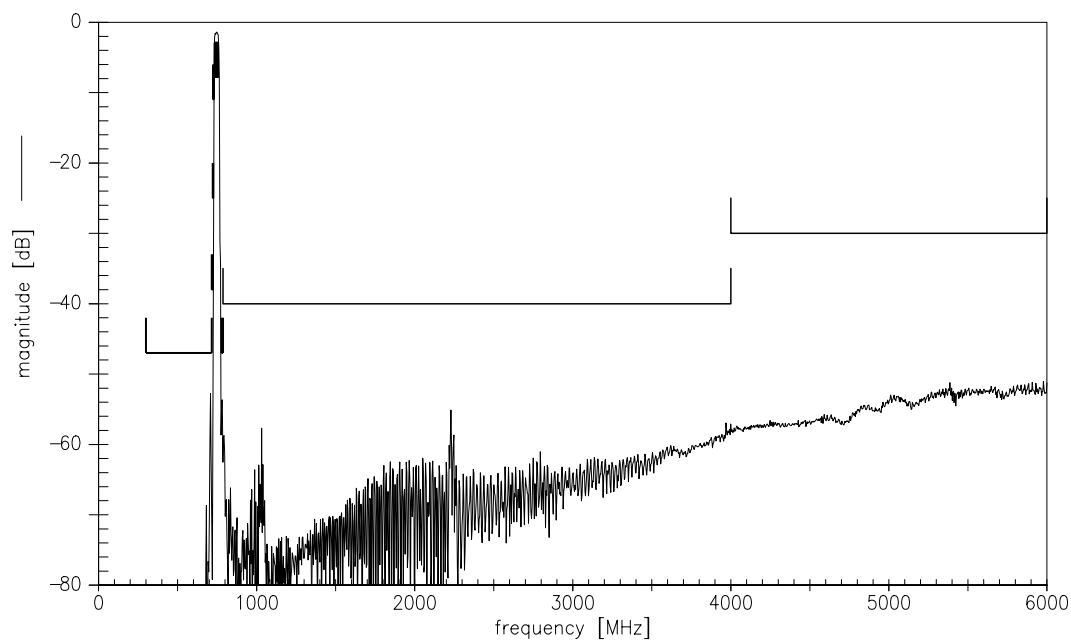
SAW Components
B8321
SAW RF filter
745.0 MHz
Data Sheet

Maximum ratings

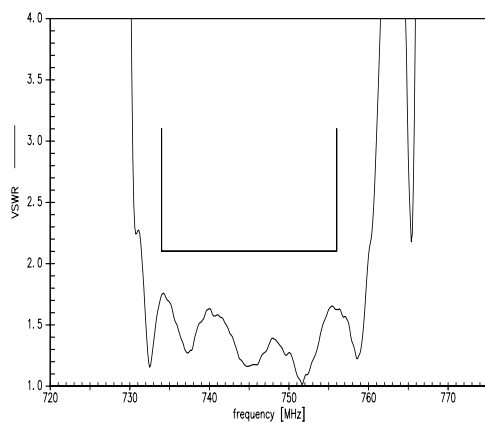
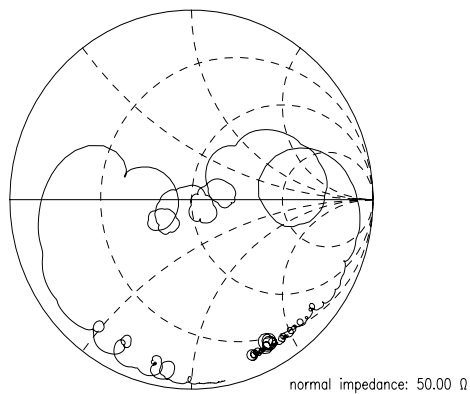
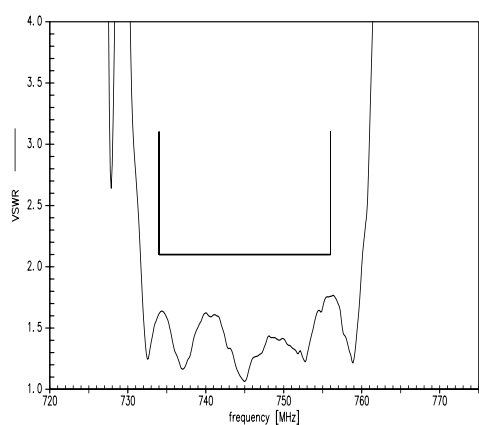
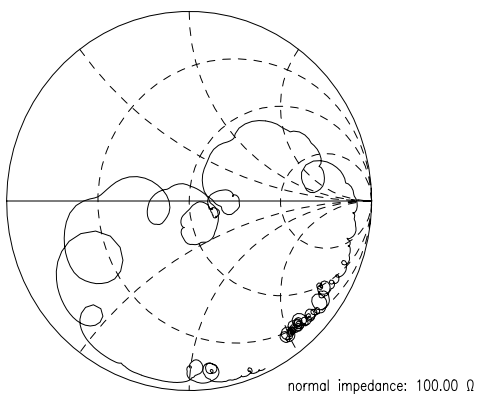
Operating temperature range	T_{stg}	-30/+85	°C	
Storage temperature range	T_{stg}	-40/+125	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100 ¹⁾	V	machine model, 1 pulse
Input power	P_{IN}	15	dBm	continuous wave, 55°C , 50000h

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

SAW Components
B8321
SAW RF filter
745.0 MHz
Data Sheet

Transfer function (narrow band)

Transfer function (wide band)


Data Sheet

S11 VSWR

S22 VSWR


SAW Components
B8321
SAW RF filter
745.0 MHz
Data Sheet

References

Type	B8321
Ordering code	B39751B8321P810
Marking and package	C61157-A8-A3
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8321_NB.s3p, B8321_WB.s3p see file header for port/in 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 8 th , 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.
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coilss	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 further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

Published by EPCOS AG

Systems, Acoustics, Waves Business Group

P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2013. This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.

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

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry published by the German Electrical and Electronics Industry Association (ZVEI)**.
7. The trade names EPCOS, BAOKE, Alu-X, CeraDiode, CeraLink, CeraPlas, CSMP, CSS, CTVS, DeltaCap, DigiSiMic, DSSP, FilterCap, FormFit, MiniBlue, MiniCell, MKD, MKK, MLS, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, SIFERRIT, SIFI, SIKORE, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SIP5D, SIP5K, ThermoFuse, WindC; are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.