SAW Components

SAW band–stop filter

SG-LTE DCS 1800

Series/type:	**B8322**
Ordering code:	**B39202-B8322-P810**
Date:	February 26, 2014
Version:	2.1

EPCOS AG is a TDK Group Company.

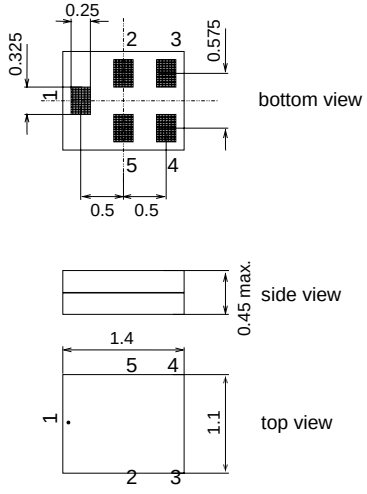
Datasheet SMD

Application

- RF band-stop filter for SG-LTE DCS 1800
- Low insertion loss
- Low amplitude ripple and group delay ripple
- Usable pass band width 75 MHz
- Impedance at input and output 50 Ω
- Unbalanced to unbalanced operation

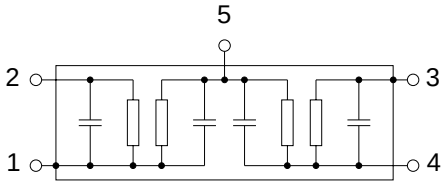
Features

- Package size 1.4 × 1.1 mm³
- Max. package height 0.45 mm
- RoHS compatible
- Approximate weight 0.003 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitive **L**evel 3



Pin configuration

■	1	Input
■	2	Coupling pin
■	3	Coupling pin
■	4	Output
■	5	Case ground

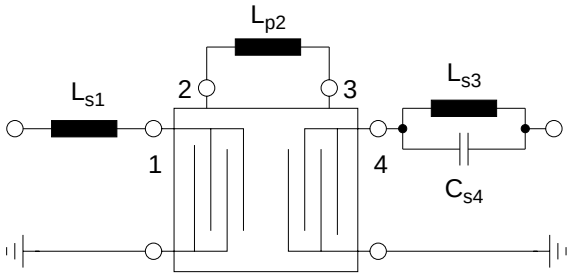


Characteristics (including losses in the matching network)

Temperature range for specification: T = –30 ˚C to +90 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ. @ 25˚C	max.	
Nominal center frequency	f_N	—	1900.0 2017.5	—	MHz
Maximum insertion attenuation	α_{max}				
1710.0 ... 1735.0 MHz		—	1.1	1.6	dB
1735.0 ... 1785.0 MHz		—	1.2	1.8	dB
Attenuation	α				
734.0 ... 746.0 MHz		15	19	—	dB
1880.0 ... 1920.0 MHz		12	20	—	dB
2010.0 ... 2025.0 MHz		8	15	—	dB
2300.0 ... 2400.0 MHz		4	8	—	dB
2496.0 ... 2690.0 MHz		12	16	—	dB

Matching network (element values depend on PCB layout)



L_{s1} = 9.5 nH
L_{p2} = 15.0 nH
L_{s3} = 5.6 nH
C_{s4} = 0.0 pF (for tuning)

Q factor of inductors:
90 @ 2.0 GHz

Maximum ratings

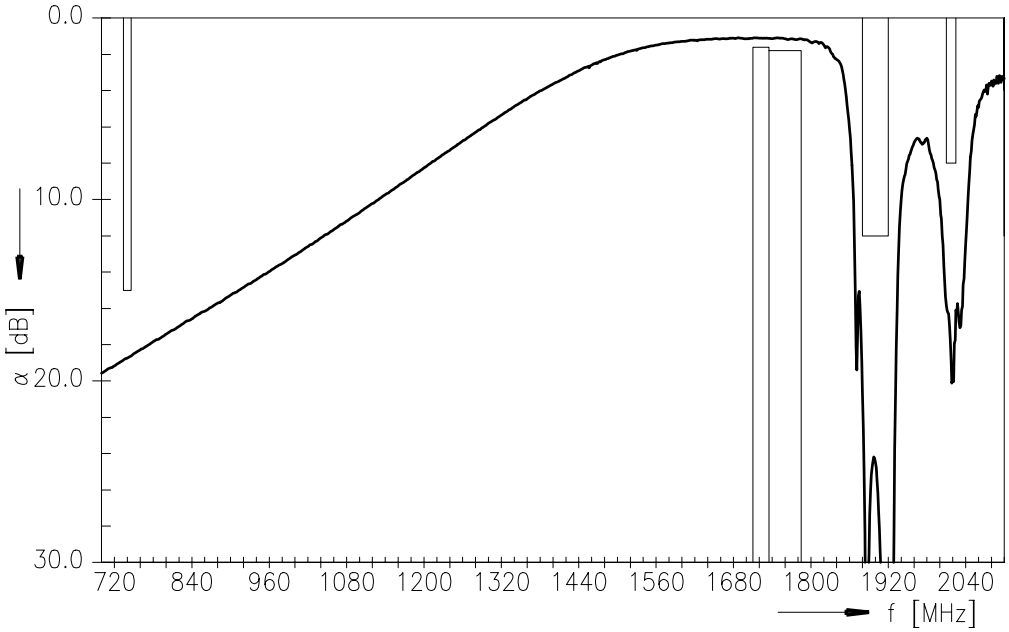
Storage temperature range	T_{stg}	–40/+85[1)]	°C	
DC voltage	V_{DC}	5[2)]	V	
ESD voltage	V_{ESD}	50[3)]	V	machine model, 10 pulses
Source power at				
1710 ... 1785 MHz	P_{IN}	34.5	dBm	GSM 1:8 signal, 55°C

1) extended upperlimit: 168h@125°C acc. to IEC60068-2-2 Bb.

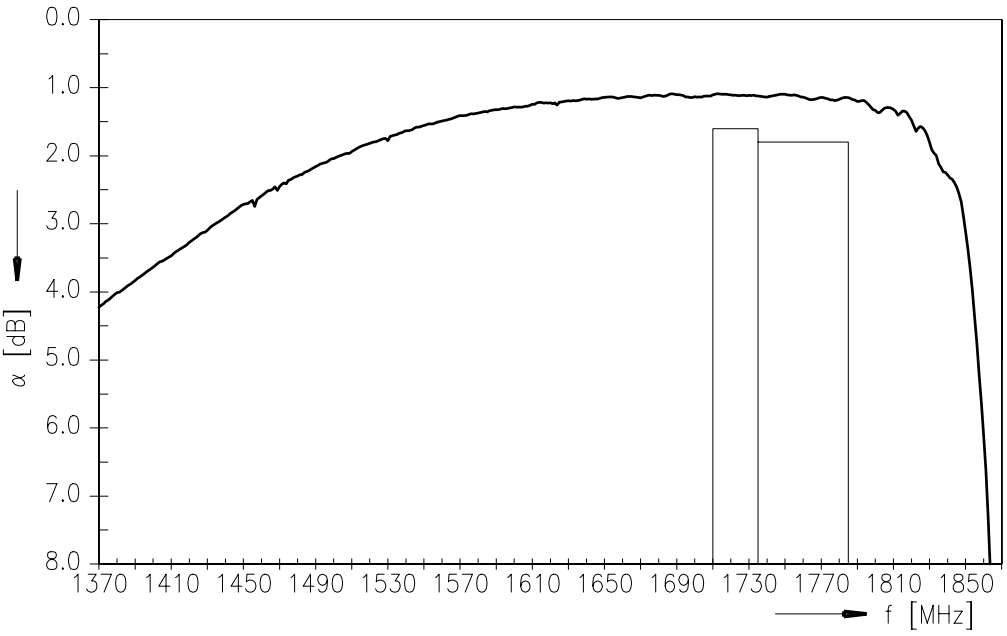
2) 168h Damp Heat Steady State acc. to IEC60068-2-67 Cy.

3) acc. to JESD22-A115B (machine model), 10 negative & 10 positive pulse.

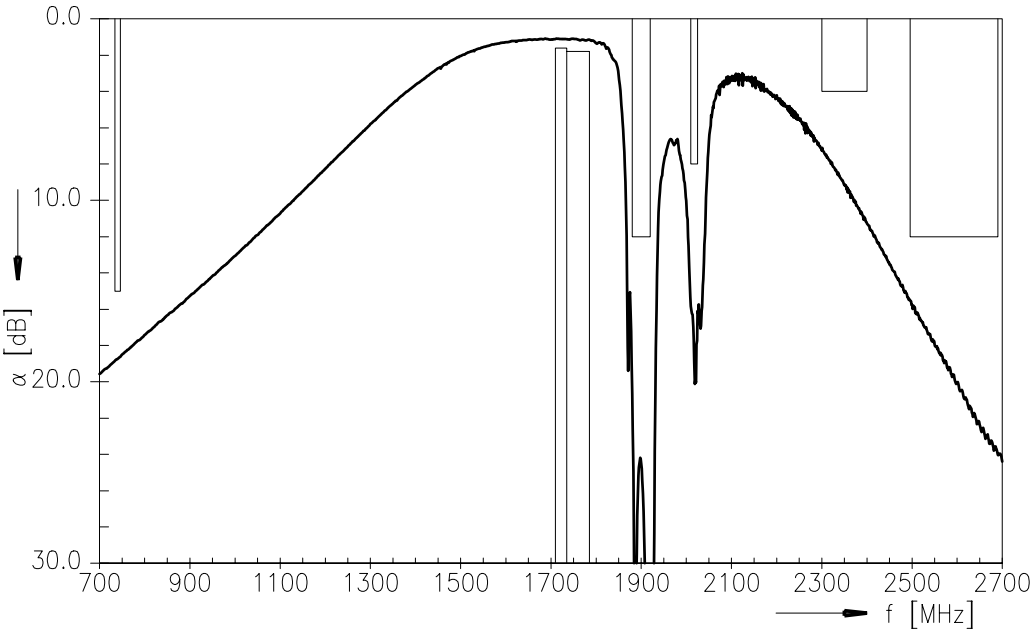
Transfer function



Transfer function (pass band)



Transfer function (wide band)



References

Type	B8322
Ordering code	B39202-B8322-P810
Marking and package	C61157-A8-A33
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8322_WB_UN.s4p (unmatched) B8322_WB.s2p (matched)
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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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 further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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