



SAW Components

SAW filter

Automotive telematics

Series/type:	B3524
Ordering code:	B39162B3524B710
Date:	May 03, 2011
Version:	2.3

Data sheet



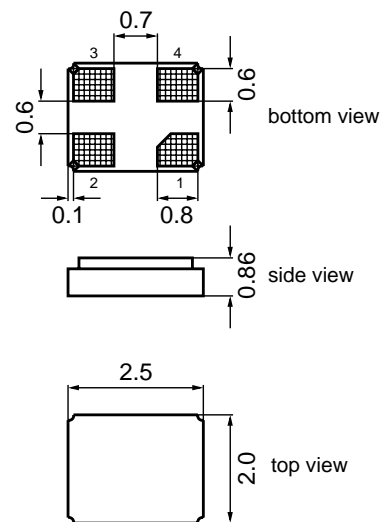
Application

- Low-loss RF filter for Automotive telematics application
- Additional passband characteristics for Galileo



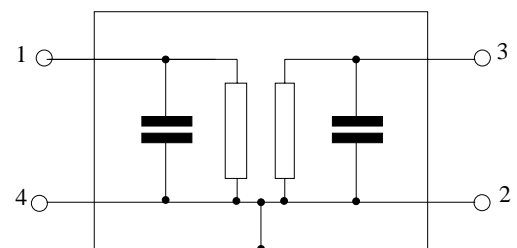
Features

- Package size 2.5 x 2.0 x 0.86 mm³
- Package code DCC4A
- RoHS compatible
- Approximate weight 0.014 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- AEC-Q200 qualified component family
- Lead free soldering compatible with J - STD20C
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input
- 3 Output
- 2,4 Case ground



Data sheet


Characteristics

Temperature range for specification: $T = -40\text{ °C to }+95\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{\max}	—	1.2	1.6	dB
1574.42 ... 1576.42 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.2	0.7	dB
1574.42 ... 1576.42 MHz					
VSWR					
Input	1574.42 ... 1576.42 MHz	—	1.35	1.7	
Output	1574.42 ... 1576.42 MHz	—	1.35	1.7	
Attenuation	α				
	10.00 ... 1476.00 MHz	37	41	—	dB
	1476.00 ... 1526.00 MHz	28	33	—	dB
	1625.00 ... 1640.00 MHz	29	41	—	dB
	1640.00 ... 1850.00 MHz	42	45	—	dB
	1850.00 ... 2000.00 MHz	37	40	—	dB
	2000.00 ... 2250.00 MHz	33	36	—	dB
	2250.00 ... 2570.00 MHz	27	30	—	dB

Data sheet


Additional Passband Characteristics for Galileo

Temperature range for specification: $T = -40\text{ °C to }+105\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation 1572.42 ... 1578.42 MHz	α_{\max}	—	1.4	2.4	dB
Amplitude ripple (p-p) 1572.42 ... 1578.42 MHz	$\Delta\alpha$	—	0.4	1.5	dB
VSWR 1572.42 ... 1578.42 MHz		—	1.4	2.1	

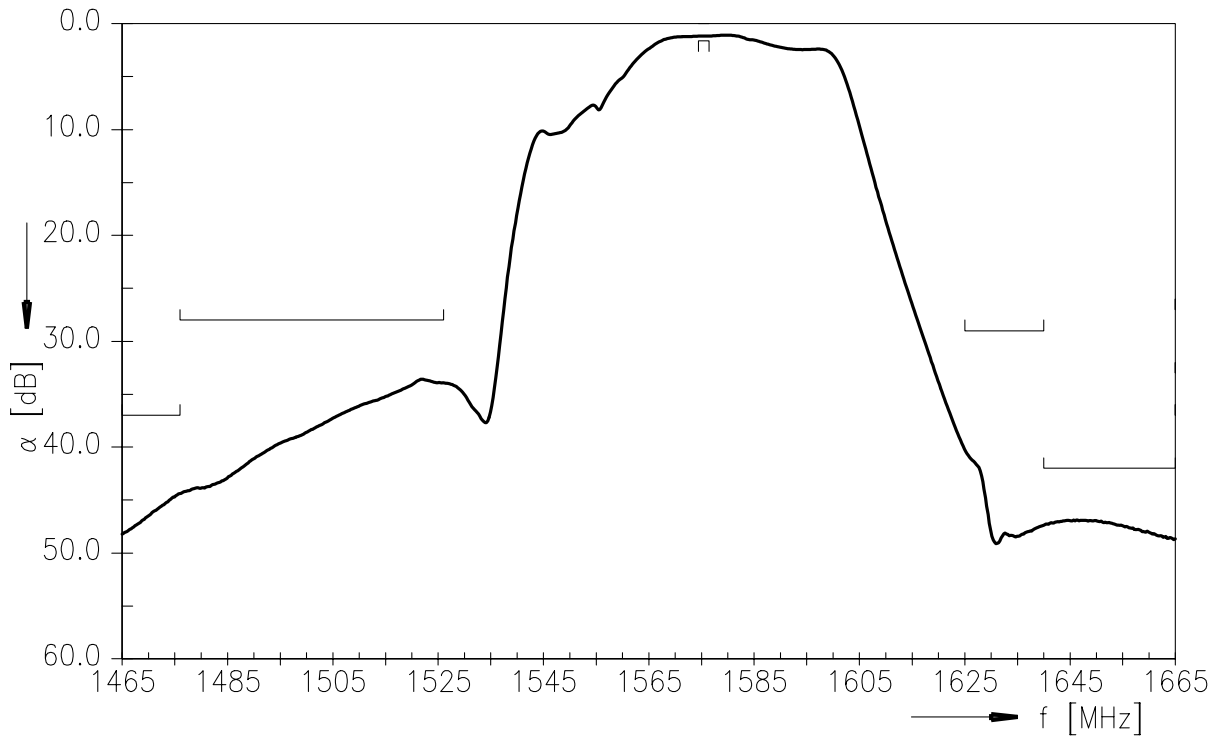
Maximum ratings

Operable temperature range	T	-45/+125	°C	
Storage temperature range	T _{stg}	-45/+125	°C	
DC voltage	V _{DC}	6	V	
Source power	P _S	10	dBm	source impedance 50 Ω
		20	dBm	824 MHz to 915 MHz, 1710 MHz to 1785 MHz

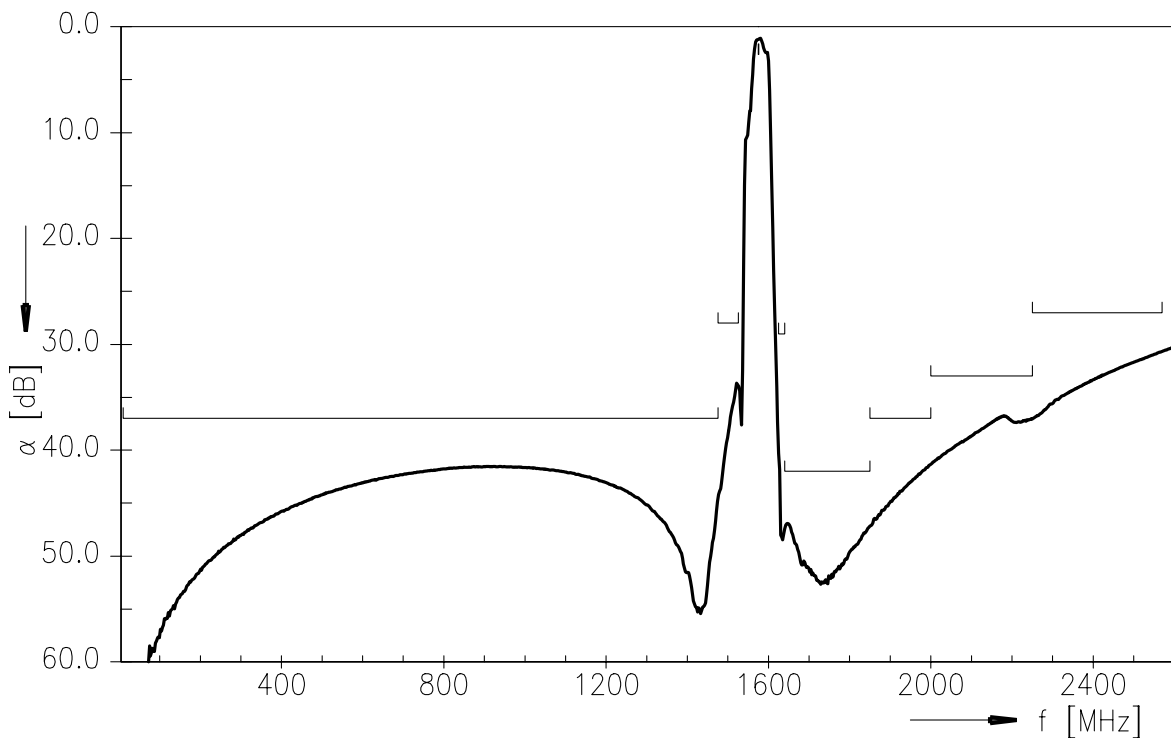
Data sheet



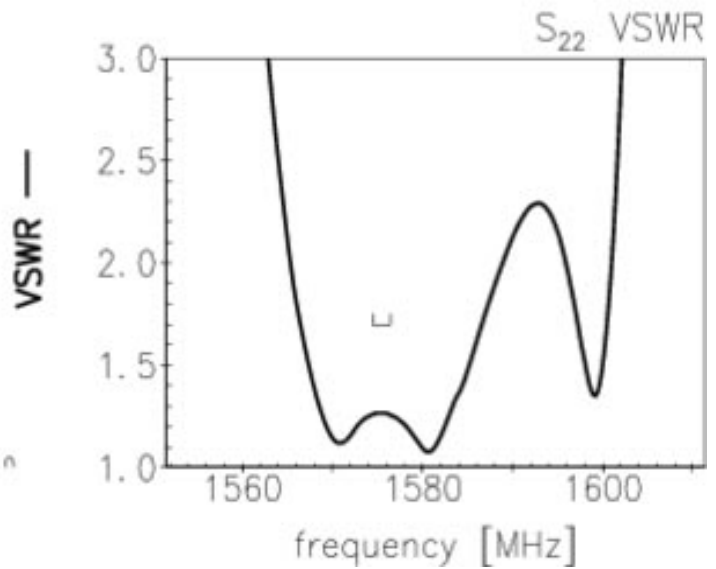
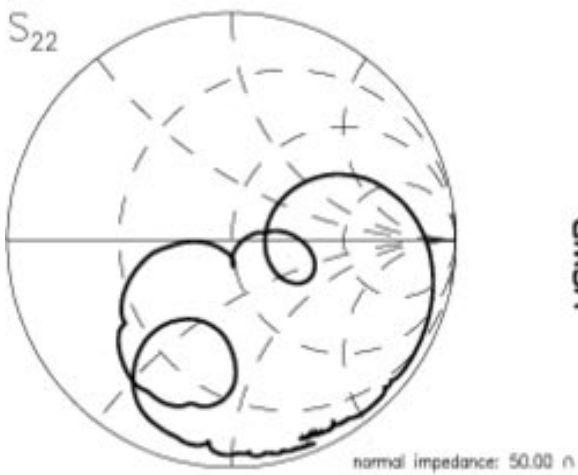
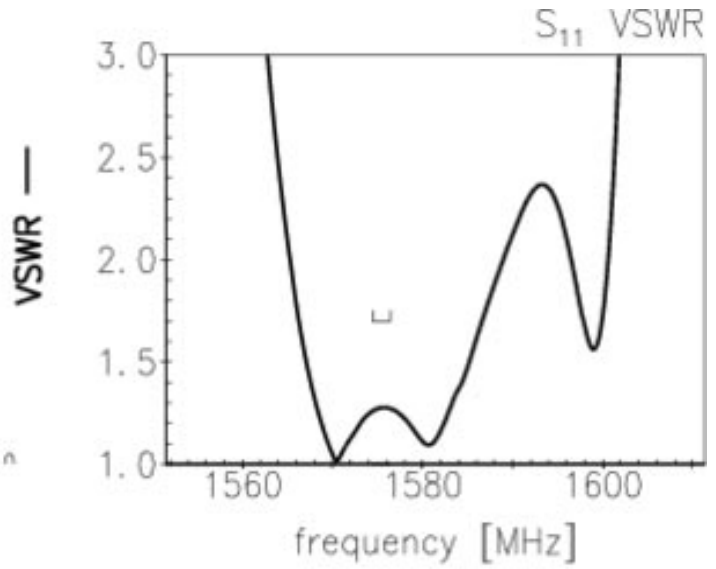
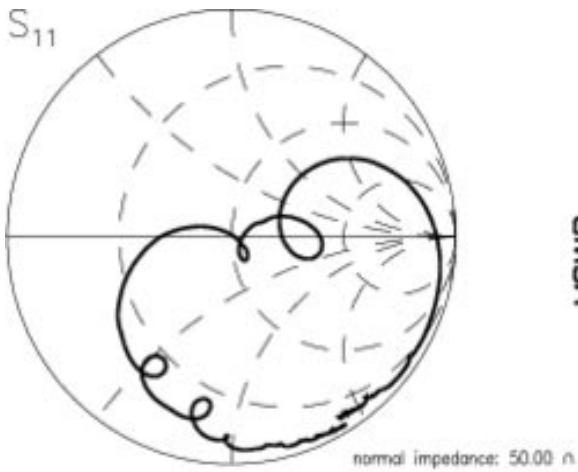
Transfer function



Transfer function (wideband)



Smith chart / VSWR



References

Type	B3524
Ordering code	B39162B3524B710
Marking and package	C61157-A7-A168
Packaging	F61074-V8239-Z000
Date codes	L_1126
S-parameters	B3524_NB.s2p, B3524_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."
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

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