SAW Components

SAW filter

Automotive telematics

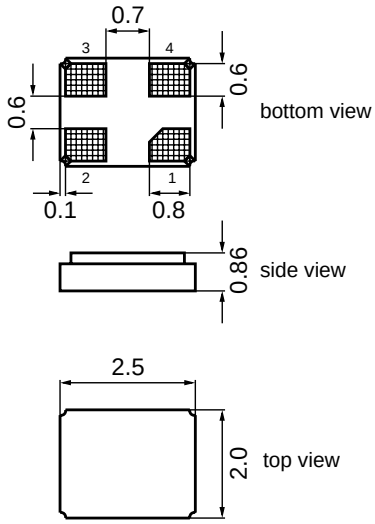
Series/type:	**B3524**
Ordering code:	**B39162B3524B710**
Date:	May 03, 2011
Version:	2.3

Application

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

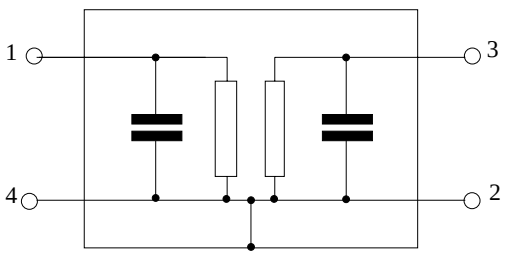
Features

- Package size 2.5 x 2.0 x 0.86 mm³
- Package code DCC4A
- RoHS compatible
- Approximate weight 0.014 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- AEC-Q200 qualified component family
- Lead free soldering compatible with J - STD20C
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Data sheet SMD

Characteristics

Temperature range for specification: T = –40 ˚C to +95 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{max}				
1574.42 ... 1576.42 MHz		—	1.2	1.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1574.42 ... 1576.42 MHz		—	0.2	0.7	dB
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

Additional Passband Characteristics for Galileo

Temperature range for specification: T = –40 ˚C to+105 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

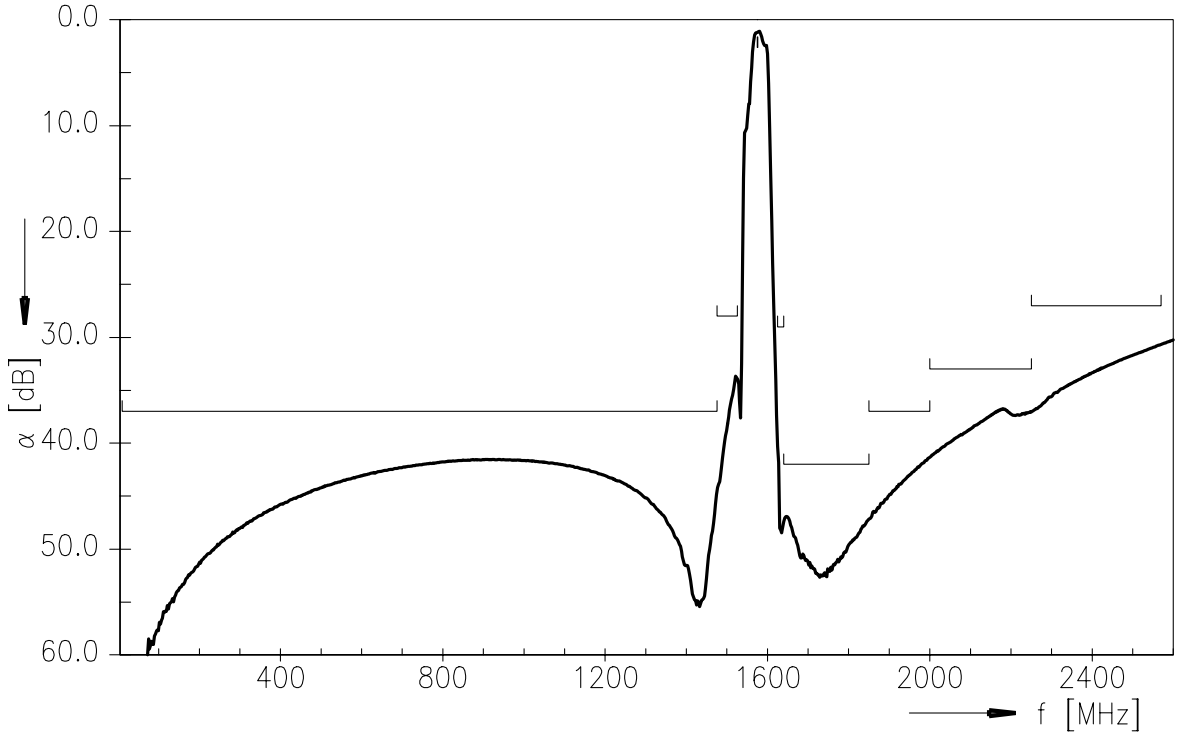
		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{max}				
1572.42 ... 1578.42 MHz		—	1.4	2.4	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1572.42 ... 1578.42 MHz		—	0.4	1.5	dB
VSWR					
1572.42 ... 1578.42 MHz		—	1.4	2.1	

Maximum ratings

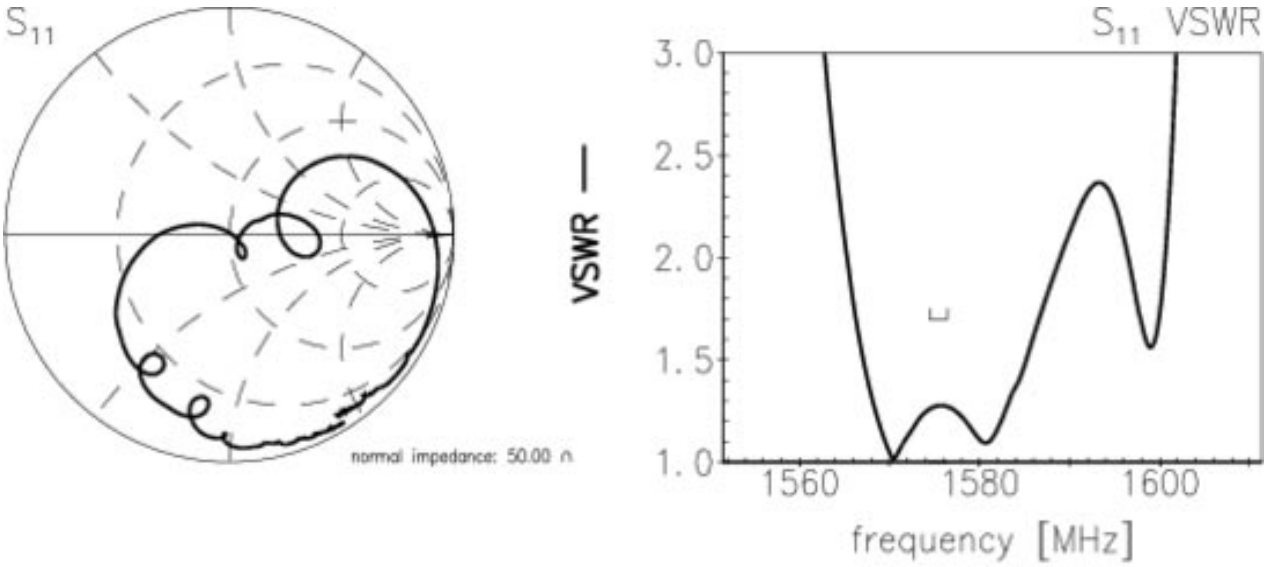
Operable temperature range	T	–45/+125	˚C	
Storage temperature range	T_{stg}	–45/+125	˚C	
DC voltage	V_{DC}	6	V	
Source power	P_S	10	dBm	source impedance 50 Ω
		20	dBm	824 MHz to 915 MHz, 1710 MHz to1785 MHz

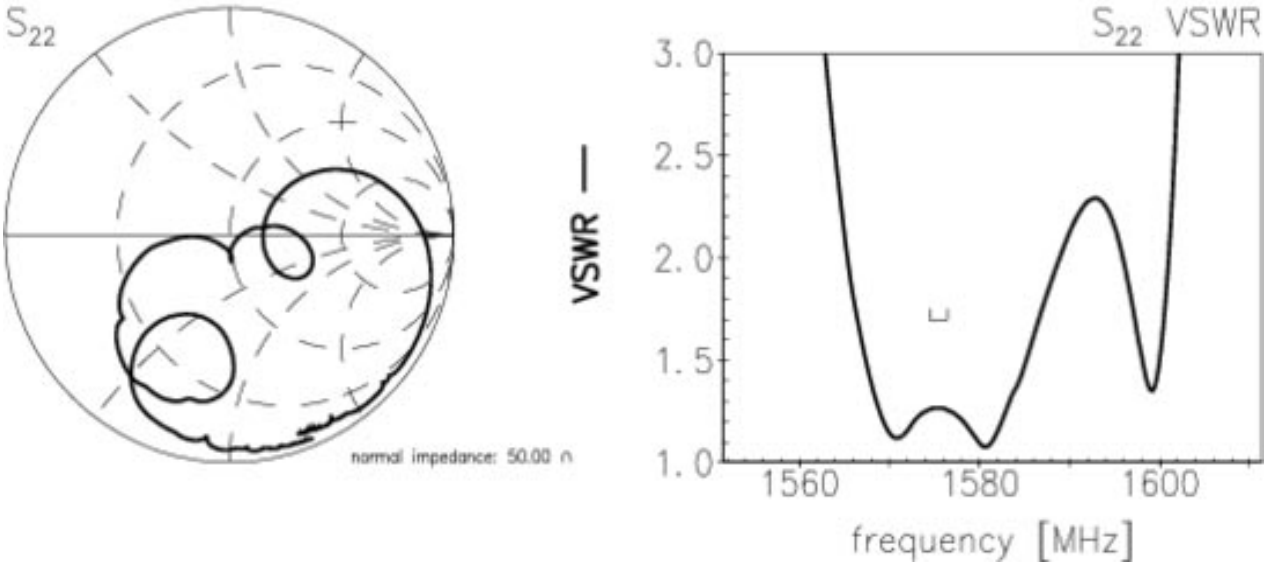
Transfer function

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."
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