



SAW Components

SAW filter

Automotive telematics

Series/type:	B3519
Ordering code:	B39162B3519U410
Date:	September 02, 2011
Version:	2.0

Data sheet



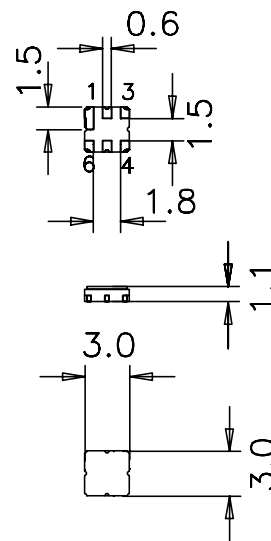
Application

- Low-loss RF filter for automotive telematics applications
- Low insertion attenuation
- Low amplitude ripple
- Usable passband 41.0 MHz



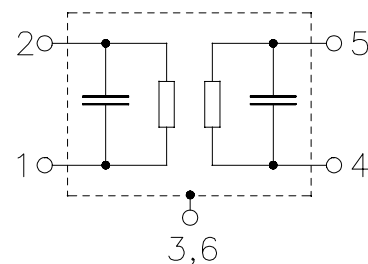
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Case ground



Data sheet


Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1585.5	—	MHz
Maximum insertion attenuation	α_{\max}				
1565.0 ... 1606.0 MHz		—	1.9	2.4	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1565.0 ... 1606.0 MHz		—	0.9	1.5	dB
Input VSWR					
1565.0 ... 1606.0 MHz		—	2.0	2.3	
Output VSWR					
1565.0 ... 1606.0 MHz		—	2.0	2.3	
Group delay ripple¹⁾ (p-p)					
1565.0 ... 1606.0 MHz		—	10	22	ns
1597.0 ... 1606.0 MHz		—	3	12	ns
Attenuation	α				
100.0 ... 1450.0 MHz		36	41	—	dB
1450.0 ... 1525.0 MHz		30	42	—	dB
1650.0 ... 2100.0 MHz		45	52	—	dB
2100.0 ... 2400.0 MHz		44	48	—	dB
2400.0 ... 2500.0 MHz		41	45	—	dB

1) Averaged over 500 kHz

Maximum ratings

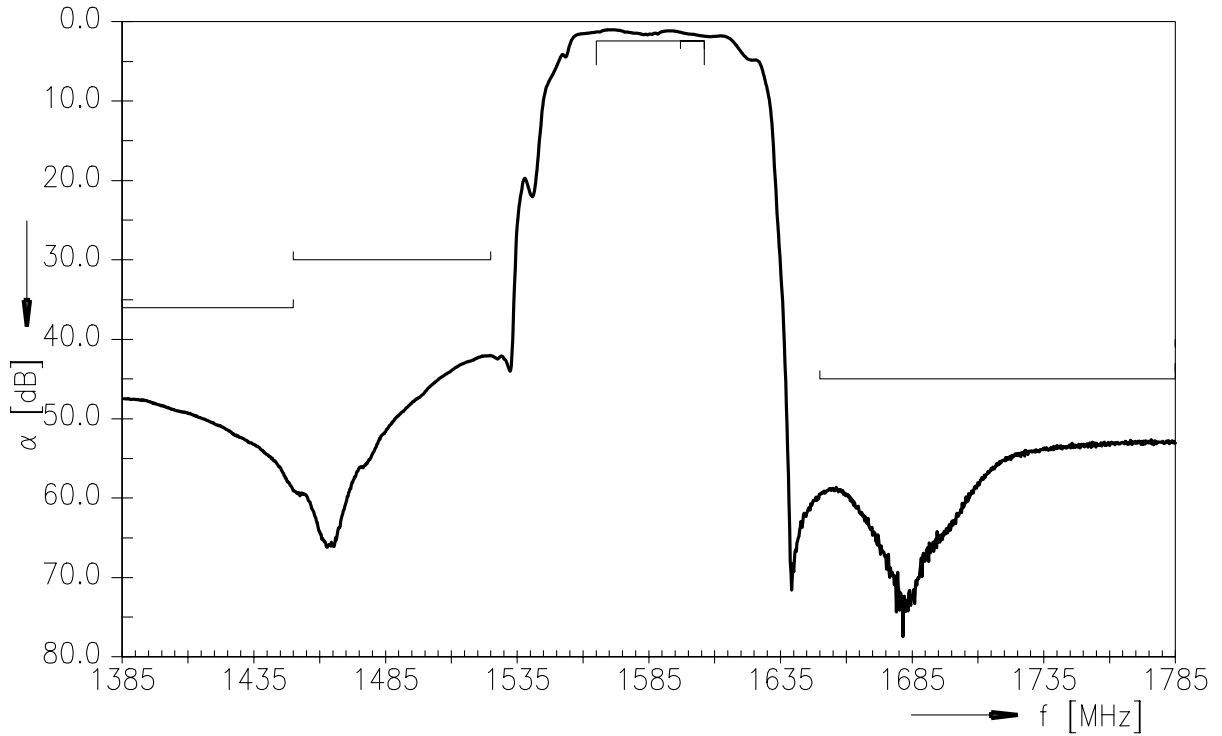
Operable temperature range	T	-45/+125	°C	
Storage temperature range	T _{stg}	-45/+125	°C	
DC voltage	V _{DC}	6	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at				source 50Ω, load 50Ω
1565.0 ... 1606.0 MHz	P _{IN}	5	dBm	cw
2400 ... 2483.5 MHz	P _{IN}	20	dBm	cw
824...960, 1710...2170 MHz	P _{IN}	20	dBm	cw
960...1525 MHz	P _{IN}	10	dBm	cw

¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.

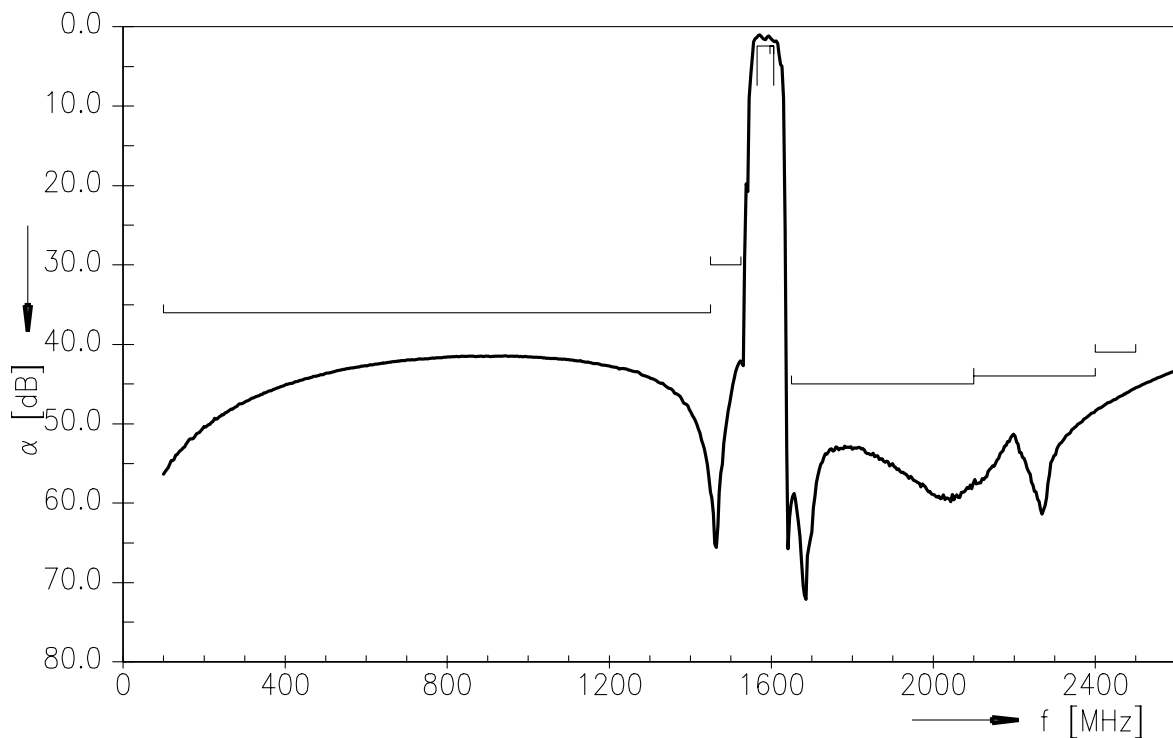
Data sheet



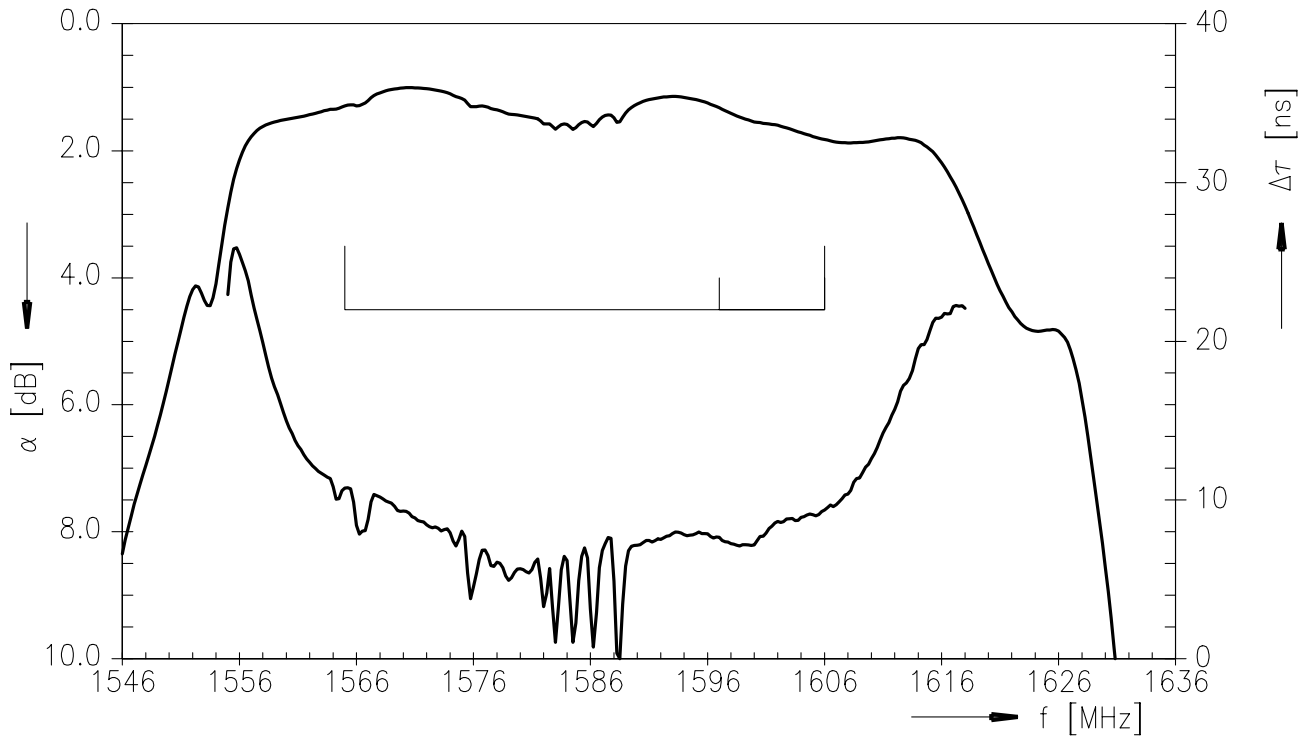
Transfer function



Transfer function (wideband)



Group delay time



References

Type	B3519
Ordering code	B39162B3519U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3519_NB.s2p, B3519_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

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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