



SAW Components

SAW RF filter

Automotive telematics

Series/type:	B3513
Ordering code:	B39202B3513U510
Date:	April 15, 2008
Version:	2.1



SAW Components

B3513

SAW RF filter

1960.0 MHz

Data sheet



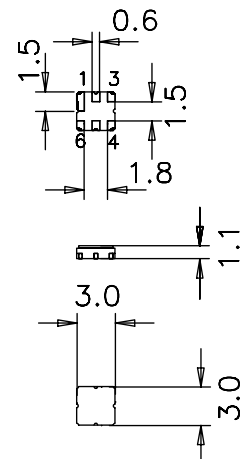
Application

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Unbalanced to balanced operation



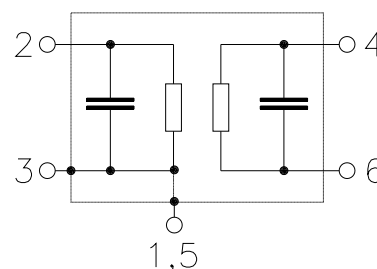
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- 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 configuration¹⁾

- 2 Input, unbalanced
- 4, 6 Output, balanced
- 1, 3, 5 Ground (case)



1) The recommended pin configuration usually offers best suppression of electrical crosstalk. The filter characteristics refer to this configuration.



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Characteristics

Temperature range for specification:	$T_A = -40\text{ °C to }+85\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 100\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1960.00	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
1930.00 ... 1990.00 MHz		—	3.5	4.2	dB
Amplitude ripple (p-p)					
1930.00 ... 1990.00 MHz		—	1.8	2.7	dB
VSWR					
1930.00 ... 1990.00 MHz		—	2.0	2.5	
Attenuation	α				
10.00 ... 1650.00 MHz		40	50	—	dB
1650.00 ... 1850.00 MHz		30	35	—	dB
1850.00 ... 1900.00 MHz		20	25	—	dB
2050.00 ... 2200.00 MHz		25	28	—	dB
2200.00 ... 2850.00 MHz		30	38	—	dB
2850.00 ... 4000.00 MHz		40	50	—	dB

Maximum ratings

Operable temperature range	T	−45/+125	°C	source and load impedance 50 Ω peak of TDMA signal, duty cycle 1 : 3
Storage temperature range	T_{stg}	−45/+125	°C	
DC voltage	V_{DC}	5	V	
Input power max.	P_S	10	dBm	



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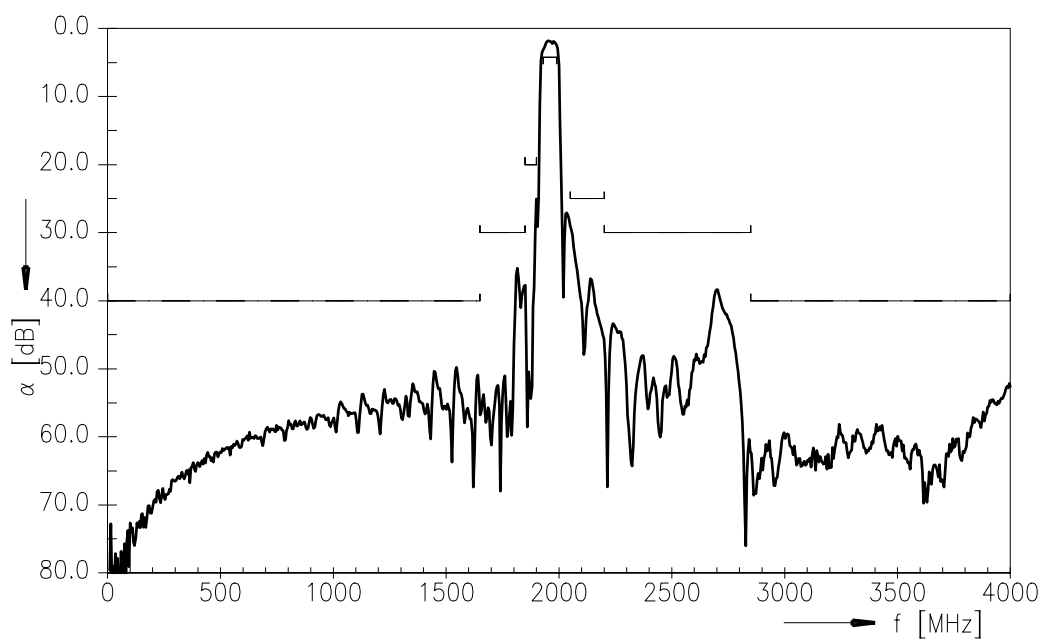
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Transfer function (three port measurement)



Transfer function (wideband)





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References

Type	B3513
Ordering code	B39202B3513U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3513_NB.s2p B3513_WB.s2p
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."

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

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