



## **SAW Components**

### **SAW RF filter**

Short range devices

<b>Series/type:</b>	<b>B3516</b>
<b>Ordering code:</b>	<b>B39192-B3516-U410</b>
<b>Date:</b>	<b>April 08, 2009</b>
<b>Version:</b>	<b>2.0</b>



SAW Components

B3516

SAW RF filter

1880.00 MHz

Data sheet

**SMD**

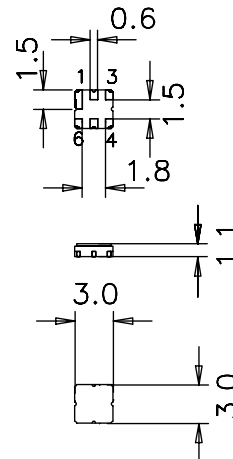
### Application

- Low-loss RF filter for mobile telephone PCS systems, transmit path
- Usable passband 60 MHz
- No matching network required for operation at 50  $\Omega$



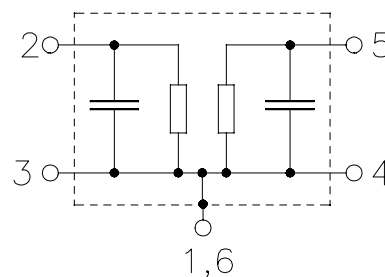
### Features

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- 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 To be grounded



Please read *cautions and warnings and important notes* at the end of this document.



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**Characteristics**

Reference temperature:  $T_A = +25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$	—	1880.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2.9	3.4	dB
1850.00 ... 1910.00 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1.3	1.8	dB
1850.00 ... 1910.00 MHz					
<b>Input VSWR</b>		—	2.0	2.2	
1850.00 ... 1910.00 MHz					
<b>Output VSWR</b>		—	2.0	2.2	
1850.00 ... 1910.00 MHz					
<b>Attenuation</b>	$\alpha$				
10.00 ... 1570.00 MHz		25.0	29.0	—	dB
1570.00 ... 1720.00 MHz		26.0	31.0	—	dB
1935.00 ... 2200.00 MHz		32.0	36.0	—	dB
2200.00 ... 2700.00 MHz		24.0	27.0	—	dB
2700.00 ... 3820.00 MHz		12.0	15.0	—	dB



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**Characteristics**

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

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	1880.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2.9	4.1	dB
1850.00 ... 1910.00 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1.3	2.7	dB
1850.00 ... 1910.00 MHz					
<b>Input VSWR</b>		—	2.0	2.3	
1850.00 ... 1910.00 MHz					
<b>Output VSWR</b>		—	2.0	2.3	
1850.00 ... 1910.00 MHz					
<b>Attenuation</b>	$\alpha$				
10.00 ... 1570.00 MHz		25.0	29.0	—	dB
1570.00 ... 1720.00 MHz		26.0	31.0	—	dB
1935.00 ... 2200.00 MHz		20.0	36.0	—	dB
2200.00 ... 2700.00 MHz		24.0	27.0	—	dB
2700.00 ... 3820.00 MHz		12.0	15.0	—	dB

**Maximum ratings**

Operable temperature range	$T_A$	-45/+125	°C	
Storage temperature range	$T_{stg}$	-45/+125	°C	
DC voltage	$V_{DC}$	6	V	
Input power max.				source and load impedance 50 $\Omega$ peak power of TDMA signal, duty cycle 1 : 3 continuous wave
1850...1910 MHz	$P_{IN}$	13	dBm	
		12	dBm	



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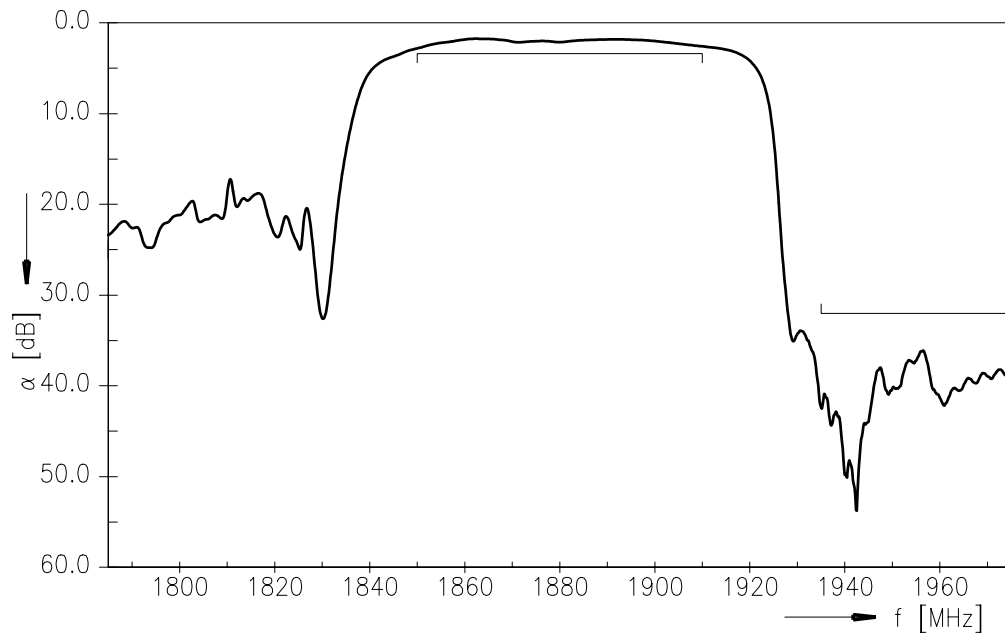
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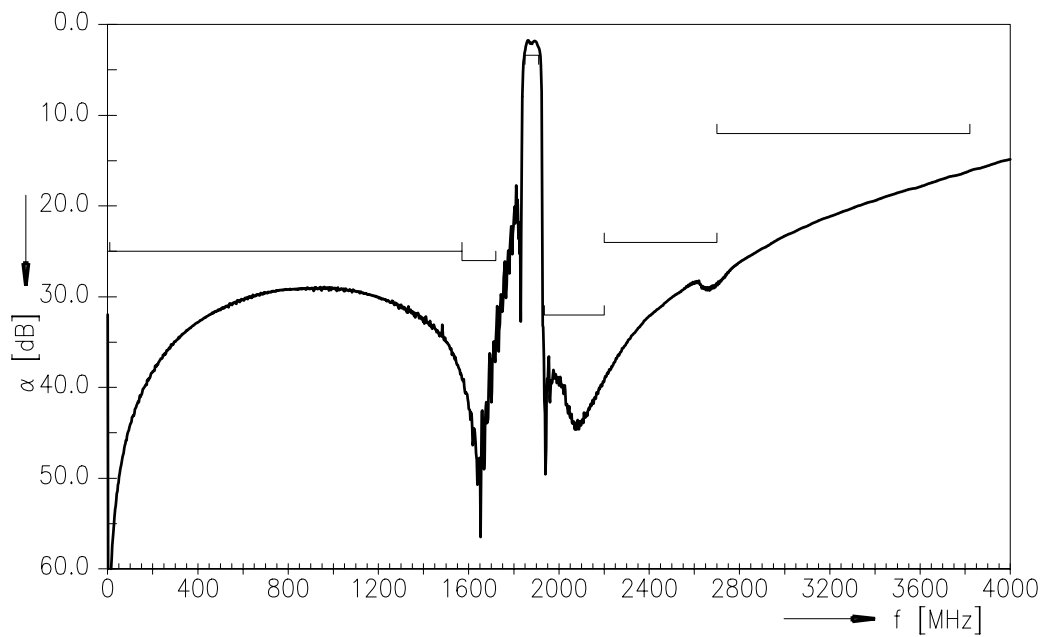
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Transfer function (25° C spec)



Transfer function (wiedeband)



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**SAW RF filter** **1880.00 MHz**

Data sheet



## References

<b>Type</b>	B3516
<b>Ordering code</b>	B39192-B3516-U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3516_NB.s2p, B3516_WB.s2p See file header for port/pin assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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