



# RF Filters for Cellular Phones

## Series/Type: **B7752**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39212B7752C910	B39212B9408K610	2007-09-21	2007-12-31	2008-03-31

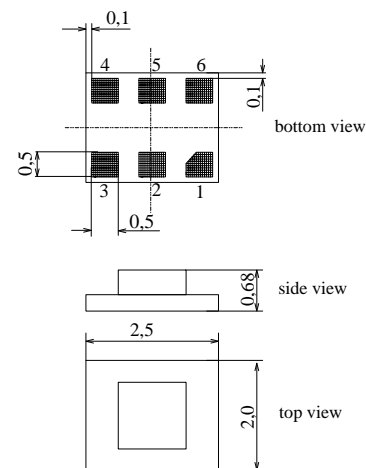
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**Chip Sized SAW Package DCS6K**
**Features**

- Low-loss RF filter for mobile telephone W-CDMA system, receive path
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 200Ω
- Package for **Surface Mounted Technology (SMT)**
- Chip Sized SAW Package (CSSP)

**Terminals**

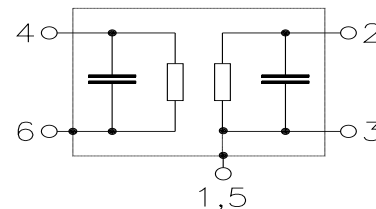
- Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

**Pin configuration**

- 2                    Input, unbalanced
- 4, 6                Output, balanced
- 1, 3, 5            To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7752	B39212-B7752-C910	C61157-A7-A97	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operating temperature range	$T$	- 20/+ 85	°C	
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	50	V	
Source power	$P_S$	10	dBm	

**Data Sheet**

**Characteristics**

Operating temperature range:  $T = +25^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 200\ \Omega$  (balanced) || 12 nH

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	2140,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,4	2,8	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,8	1,2	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple per 5MHz channel (p-p)</b>	$\Delta\alpha_{5\text{MHz}}$	—	0,3	0,5	dB
2110,0 ... 2170,0 MHz					
<b>Input VSWR</b>		—	1,9	2,2	
2110,0 ... 2170,0 MHz					
<b>Output VSWR</b>		—	1,9	2,2	
2110,0 ... 2170,0 MHz					
<b>Output amplitude balance (<math> S_{31}/S_{21} </math>)</b>		-1,0	0	1,0	dB
2110,0 ... 2170,0 MHz					
<b>Output phase balance (<math>\phi(S_{31})-\phi(S_{21})+180^{\circ}</math>)</b>		-10,0	0	10,0	degree
2110,0 ... 2170,0 MHz					
<b>Attenuation</b>	$\alpha$				
180,0 ... 200,0 MHz		60	80	—	dB
200,0 ... 1000,0 MHz		50	58	—	dB
1000,0 ... 1880,0 MHz		35	40	—	dB
1880,0 ... 1980,0 MHz		30	36	—	dB
1980,0 ... 2050,0 MHz		24	28	—	dB
2205,0 ... 2255,0 MHz		15	22	—	dB
2255,0 ... 2300,0 MHz		20	27	—	dB
2300,0 ... 2490,0 MHz		27	34	—	dB
2490,0 ... 2550,0 MHz		35	40	—	dB
2550,0 ... 3200,0 MHz		35	39	—	dB
3200,0 ... 6000,0 MHz		40	54	—	dB

**Data Sheet**

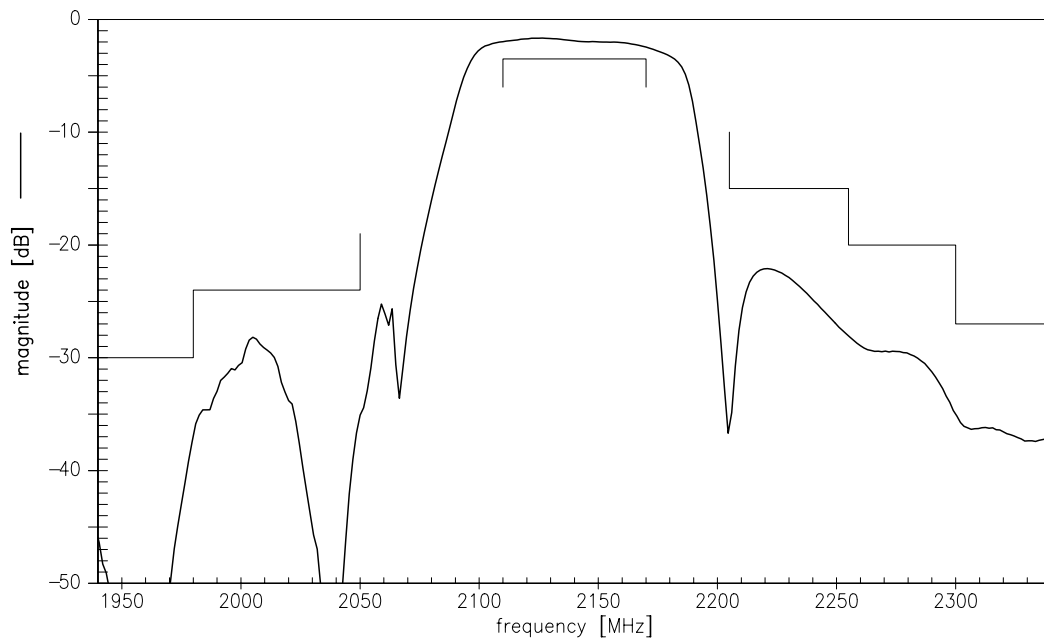
**Characteristics**

Operating temperature range:  $T = -20$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50$  Ω  
 Terminating load impedance:  $Z_L = 200$  Ω (balanced) || 12 nH

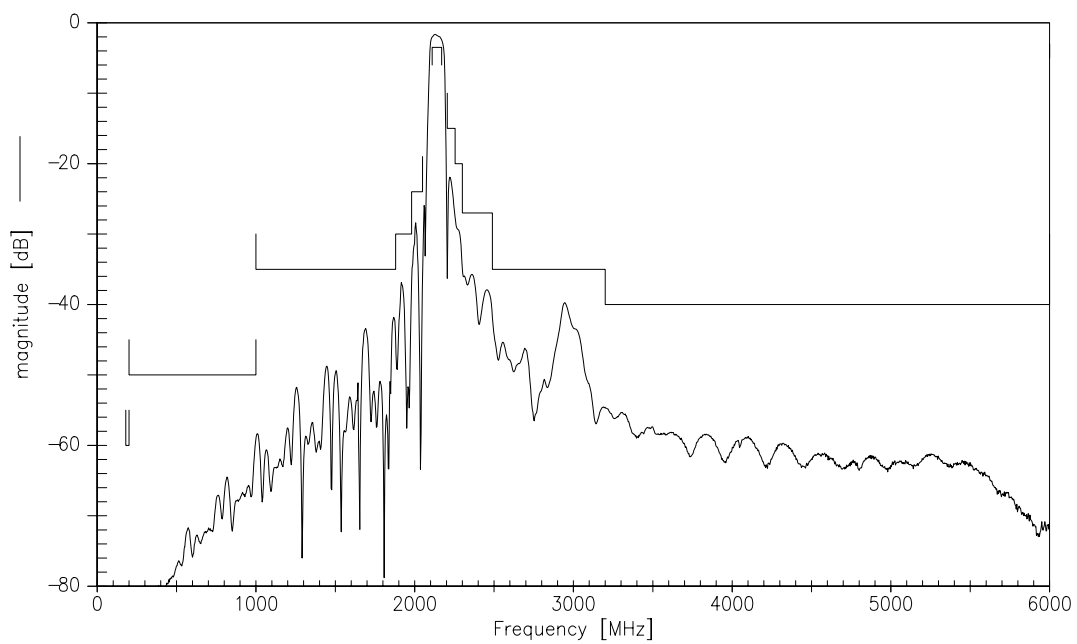
		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$	—	2140,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2,8	3,2	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,2	1,5	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple per 5MHz channel (p-p)</b>	$\Delta\alpha_{5MHz}$	—	0,3	0,5	dB
2110,0 ... 2170,0 MHz					
<b>Input VSWR</b>		—	2,0	2,2	
2110,0 ... 2170,0 MHz					
<b>Output VSWR</b>		—	2,0	2,2	
2110,0 ... 2170,0 MHz					
<b>Output amplitude balance (<math> S_{31}/S_{21} </math>)</b>		-1,0	0	1,5	dB
2110,0 ... 2170,0 MHz					
<b>Output phase balance (<math>\phi(S_{31}) - \phi(S_{21}) + 180^\circ</math>)</b>		-10,0	0	15,0	degree
2110,0 ... 2170,0 MHz					
<b>Attenuation</b>	$\alpha$				
180,0 ... 200,0 MHz		60	80	—	dB
200,0 ... 1000,0 MHz		50	58	—	dB
1000,0 ... 1880,0 MHz		35	40	—	dB
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1980,0 ... 2050,0 MHz		24	28	—	dB
2205,0 ... 2255,0 MHz		15	21	—	dB
2255,0 ... 2300,0 MHz		20	27	—	dB
2300,0 ... 2490,0 MHz		27	34	—	dB
2490,0 ... 2550,0 MHz		35	40	—	dB
2550,0 ... 3200,0 MHz		35	39	—	dB
3200,0 ... 6000,0 MHz		40	54	—	dB



Transfer function:

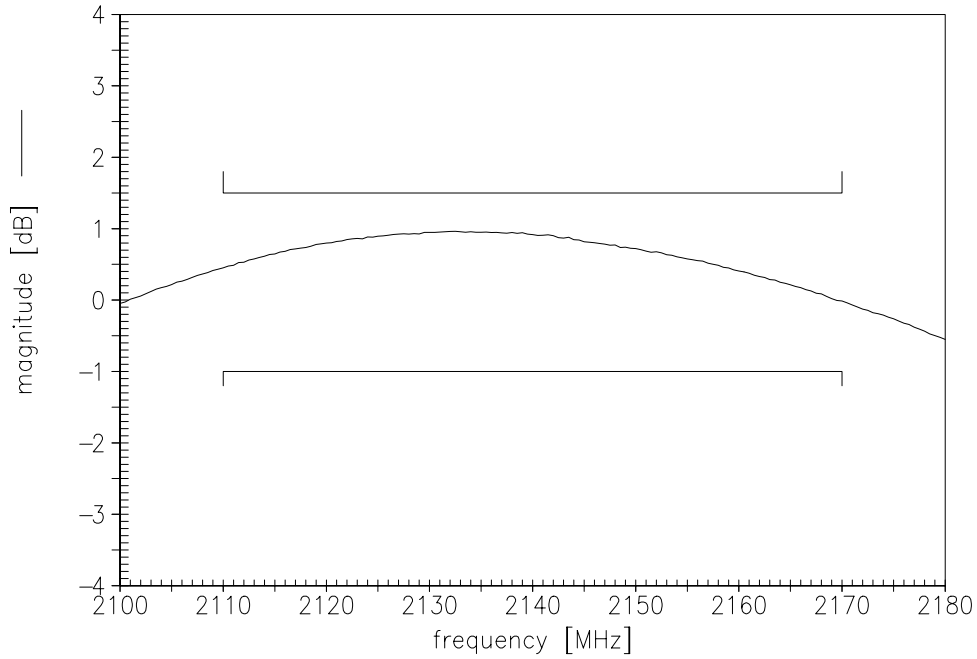


Transfer function (wide band) :

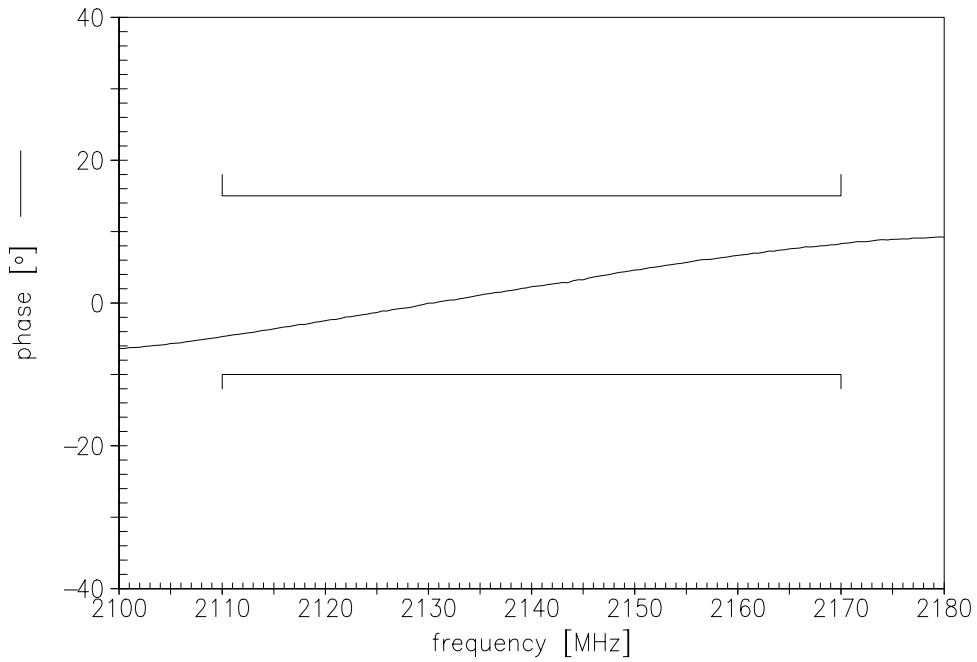




**Output amplitude balance( $|S_{31}/S_{21}|$ ):**



**Output phase balance( $\phi(S_{31})-\phi(S_{21})+180^\circ$ ):**





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