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## RF Filters for Cellular Phones

Series/Type: B7752

The following products presented in this data sheet are being withdrawn.

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

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.



## SAW Components B7752

#### **Low-Loss Filter for Mobile Communication**

2140,0 MHz

**Data Sheet** 



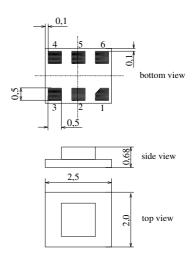
#### Chip Sized SAW Package DCS6K

#### **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  $50\Omega$  to  $200\Omega$
- Package for Surface Mounted Technology (SMT)
- Chip Sized SAW Package (CSSP)

### Terminals

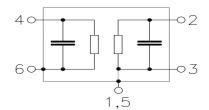
■ Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

#### Pin configuration

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



Туре	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	Τ	<b>–</b> 20/+ 85	°C
Storage temperature range	$T_{\rm stg}$	<b>- 40/+ 85</b>	°C
DC voltage	$V_{\rm DC}$	5	V
ESD voltage	$V_{ESD}$	50	V
Source power	$P_{\rm S}$	10	dBm



SAW Components

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#### **Low-Loss Filter for Mobile Communication**

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**Data Sheet** 

Characteristics

Operating temperature range:  $T = +25^{\circ}C$ Terminating source impedance:

 $Z_{\rm S} = 50 \,\Omega$  $Z_{\rm L} = 200 \,\Omega$  (balanced) || 12 nH Terminating load impedance:

		min.	typ.	max.	
Center frequency	$f_{\mathbb{C}}$	_	2140,0		MHz
Maximum insertion attenuation	0				
2110,0 2170,0 MF	α <sub>max</sub> Iz	_	2,4	2,8	dB
2110,0 2170,0			_, .	2,0	
Amplitude ripple (p-p)	$\Delta \alpha$				
2110,0 2170,0 MF	lz	_	0,8	1,2	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta lpha_{5MHz}$				
2110,0 2170,0 MF		_	0,3	0,5	dB
Input VSWR					
2110,0 2170,0 MH	lz	_	1,9	2,2	
Output VSWR	ı_		4.0	0.0	
2110,0 2170,0 MF	IZ		1,9	2,2	
Output amplitude balance( $ S_{31}/S_{21} $ )					
2110,0 2170,0 MF	lz	-1,0	0	1,0	dB
Output phase balance( $\phi(S_{31})$ - $\phi(S_{21})$ +180°)					
2110,0 2170,0 MH	lz	-10,0	0	10,0	degree
<b>Attenuation</b> 180,0 200,0 MH	α	60	80		dB
180,0 200,0 MF 200,0 1000,0 MF		50	58	_	dВ
1000,0 1880,0 MF		35	40		dB
1880,0 1980,0 MF		30	36		dB
1980,0 2050,0 MH		24	28	_	dB
2205,0 2255,0 MH		15	22	_	dB
2255,0 2300,0 MH		20	27	_	dB
2300,0 2490,0 MH	lz	27	34	_	dB
2490,0 2550,0 MH	lz	35	40	_	dB
2550,0 3200,0 MF	łz	35	39	_	dB
3200,0 6000,0 MH	lz	40	54	_	dB



SAW Components

B7752

#### **Low-Loss Filter for Mobile Communication**

2140,0 MHz

**Data Sheet** 

**Characteristics** 

Operating temperature range:  $T = -20 \text{ to } +85 \,^{\circ}\text{C}$ 

Terminating source impedance:

 $Z_{\rm S} = 50 \,\Omega$  $Z_{\rm L} = 200 \,\Omega$  (balanced) || 12 nH Terminating load impedance:

		min.	typ.	max.	
Center frequency	$f_{\mathbb{C}}$	_	2140,0		MHz
Maximum insertion attenuation 2110,0 2170,0 MHz	$\alpha_{\text{max}}$		2,8	3,2	dB
2110,0 2170,0 WH 12			2,0	5,2	lab .
Amplitude ripple (p-p)	$\Delta \alpha$				
2110,0 2170,0 MHz		_	1,2	1,5	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta lpha_{5MHz}$				
2110,0 2170,0 MHz			0,3	0,5	dB
, ,			,	,	
Input VSWR					
2110,0 2170,0 MHz		_	2,0	2,2	
Output VSWR					
2110,0 2170,0 MHz		_	2,0	2,2	
Output amplitude balance( $ S_{31}/S_{21} $ )		4.0		4 -	-ID
2110,0 2170,0 MHz		-1,0	0	1,5	dB
Output phase balance( $\phi(S_{31})$ - $\phi(S_{21})$ +180°)					
2110,0 2170,0 MHz		-10,0	0	15,0	degree
<b>Attenuation</b> 180,0 200,0 MHz	α	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	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

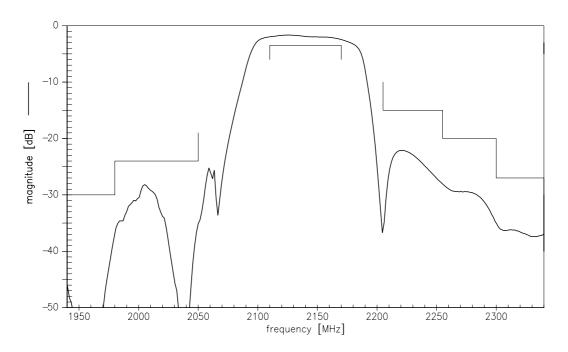


SAW Components B7752
Low-Loss Filter for Mobile Communication 2140,0 MHz

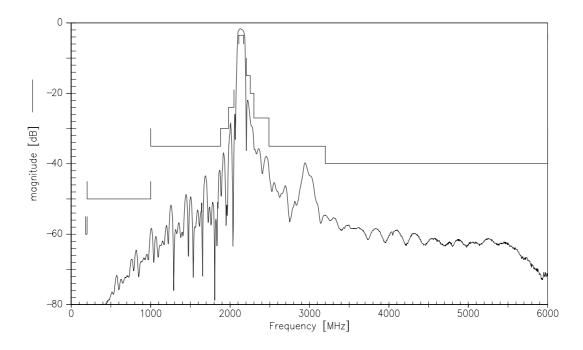
**Data Sheet** 



#### Transfer function:



#### Transfer function (wide band):



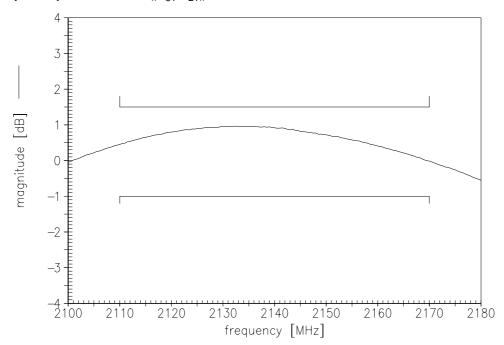


# SAW Components B7752 Low-Loss Filter for Mobile Communication 2140,0 MHz

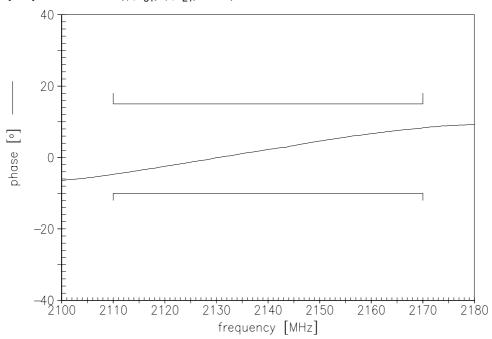
**Data Sheet** 



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



#### Output phase balance( $\phi(S_{31})$ - $\phi(S_{21})$ +180°):





SAW Components

**Low-Loss Filter for Mobile Communication** 

2140,0 MHz

B7752

**Data Sheet** 



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