EPCOS

SAW Components

Data Sheet B7752

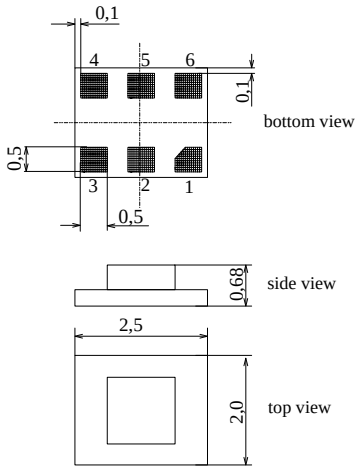
Chip **S**ized **S**AW **P**ackage **DCS6K**

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 **S**urface **M**ounted **T**echnology (**SMT**)
- Chip Sized SAW Package (CSSP)

Terminals

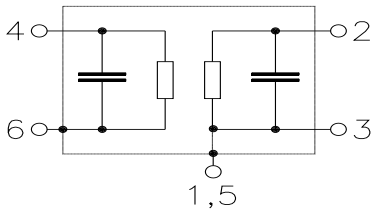
- Gold-plated Ni



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 **S**ensitive **D**evice (**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	

Characteristics

Operating temperature range: T = +25°C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω (balanced) || 12 nH

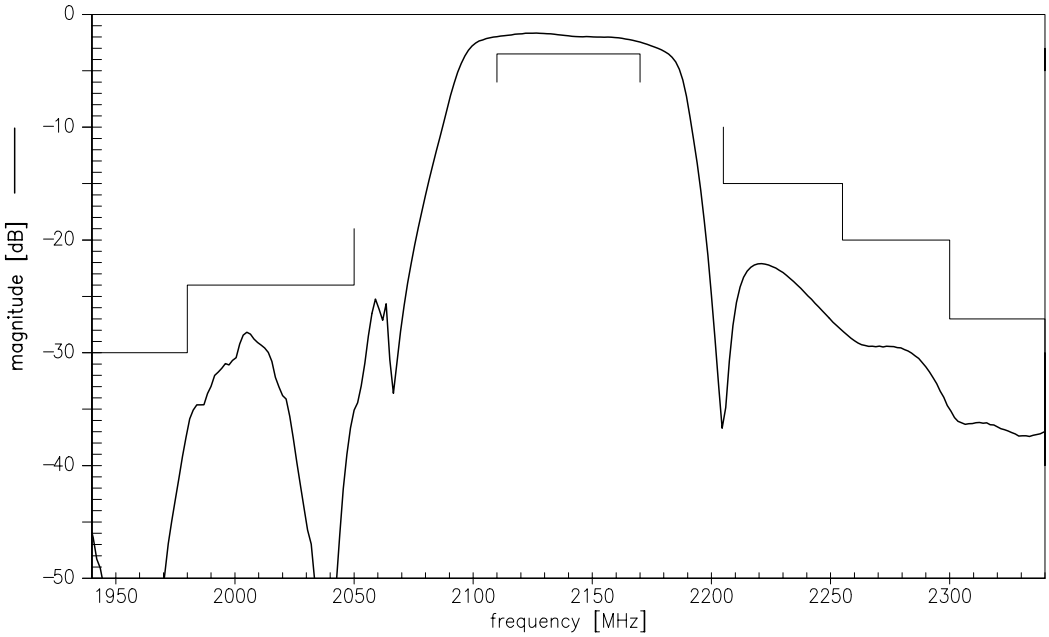
		min.	typ.	max.	
Center frequency	f_C	—	2140,0	—	MHz
Maximum insertion attenuation	α_{max}				
2110,0 ... 2170,0 MHz		—	2,4	2,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2110,0 ... 2170,0 MHz		—	0,8	1,2	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5MHz}$				
2110,0 ... 2170,0 MHz		—	0,3	0,5	dB
Input VSWR					
2110,0 ... 2170,0 MHz		—	1,9	2,2	
Output VSWR					
2110,0 ... 2170,0 MHz		—	1,9	2,2	
Output amplitude balance($\lvert S_{31}/S_{21}\rvert$)					
2110,0 ... 2170,0 MHz		-1,0	0	1,0	dB
Output phase balance($\phi(S_{31})-\phi(S_{21})+180°$)					
2110,0 ... 2170,0 MHz		-10,0	0	10,0	degree
Attenuation	α				
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

Characteristics

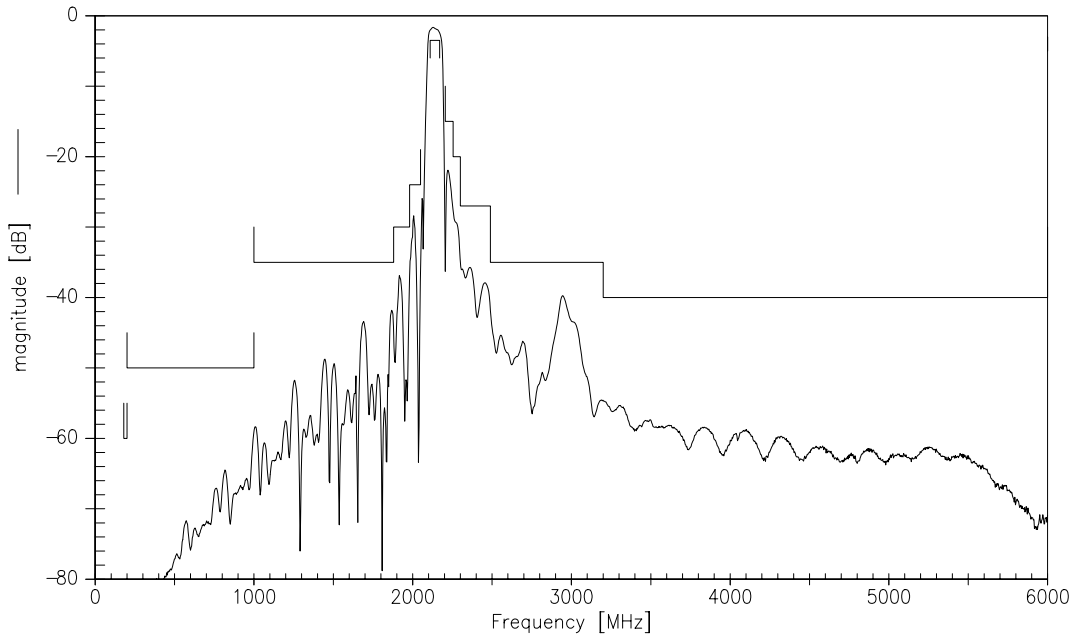
Operating temperature range: T = -20 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω (balanced) || 12 nH

		min.	typ.	max.	
Center frequency	f_C	—	2140,0	—	MHz
Maximum insertion attenuation	α_{max}				
2110,0 ... 2170,0 MHz		—	2,8	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2110,0 ... 2170,0 MHz		—	1,2	1,5	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5MHz}$				
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($\lvert S_{31}/S_{21}\rvert$)					
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
Attenuation	α				
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	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

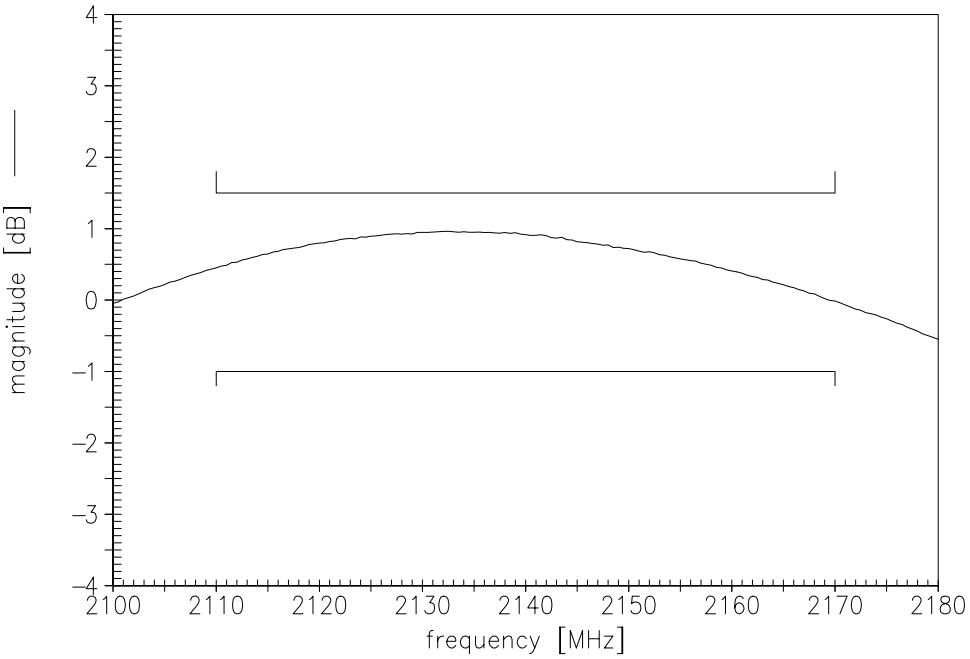
Transfer function:



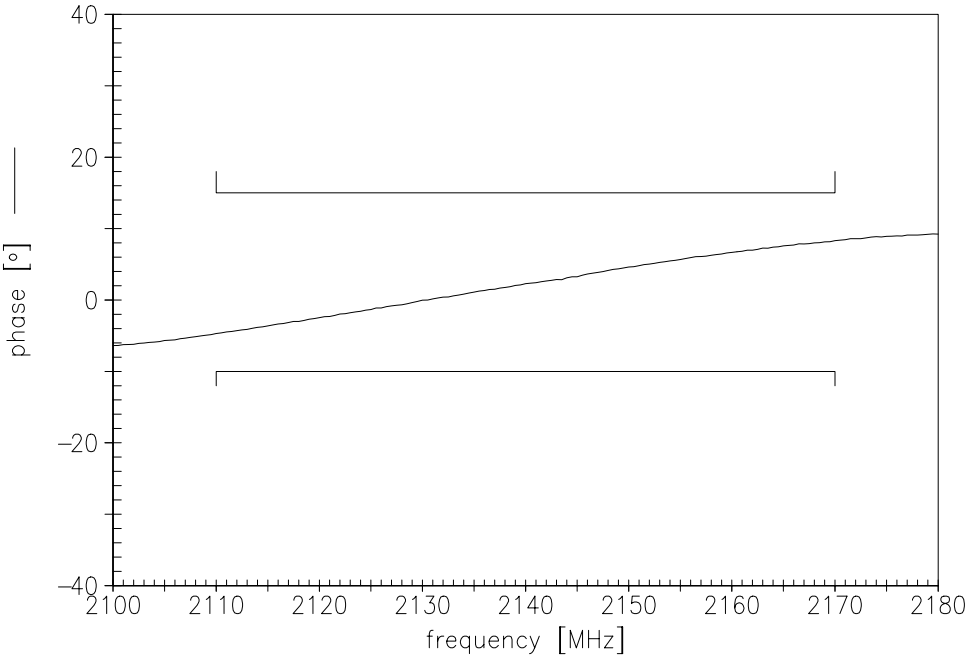
Transfer function (wide band) :



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



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



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, D-81617 München

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