



SAW Components

Data Sheet B4121





SAW Components

B4121

Low-Loss Filter for Mobile Communication

942,50 MHz

Data Sheet



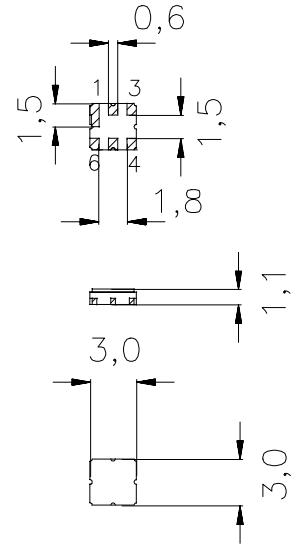
Ceramic package **DCC6D**

Features

- Low-loss RF filter for mobile telephone EGSM systems, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 150 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**

Terminals

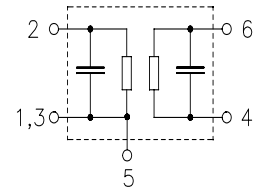
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4121	B39941-B4121-U510	C61157-A7-A68	F61074-V8089-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40 / + 85	°C	source impedance 50 Ω, load impedance 150 Ω, CW input for min. 2000 h
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	3	V	
Input power max.	P_{IN}			
880 ... 915 MHz		18	dBm	
1705 ... 1785 MHz		18	dBm	



Characteristics

Operating temperature range: $T = 25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 150 \text{ } \Omega \parallel 80 \text{ nH}$

			min.	typ.	max.	
Center frequency	f_C		—	942,5	—	MHz
Maximum insertion attenuation	α_{\max}					
		925,0 ... 960,0 MHz	—	2,8	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
		925,0 ... 960,0 MHz	—	1,0	1,4	dB
Attenuation	α					
		0,0 ... 600,0 MHz	60	70	—	dB
		600,0 ... 880,0 MHz	50	55	—	dB
		880,0 ... 905,0 MHz	30	38	—	dB
		905,0 ... 915,0 MHz	18	23	—	dB
		980,0 ... 1000,0 MHz	21	23	—	dB
		1000,0 ... 1025,0 MHz	30	37	—	dB
		1025,0 ... 1050,0 MHz	35	40	—	dB
		1050,0 ... 1500,0 MHz	50	57	—	dB
		1500,0 ... 2130,0 MHz	45	55	—	dB
		2130,0 ... 3000,0 MHz	40	48	—	dB
		3000,0 ... 4050,0 MHz	35	41	—	dB
		4050,0 ... 5700,0 MHz	23	30	—	dB
Symmetry in band (referenced to the matched operating condition)						
	$ S_{31} / S_{21} $	925,0 ... 960,0 MHz	-1,8	0	1,2	dB
	$\arg(S_{31}/S_{21})$	925,0 ... 960,0 MHz	170	180	192	$^\circ$



Characteristics

Operating temperature range: $T = -10$ to $+75$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 150 \Omega \parallel 80$ nH

			min.	typ.	max.	
Center frequency	f_C		—	942,5	—	MHz
Maximum insertion attenuation	α_{max}		—	3,0	3,8	dB
		925,0 ... 960,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,2	2,0	dB
		925,0 ... 960,0 MHz				
Attenuation	α					
		0,0 ... 600,0 MHz	60	70	—	dB
		600,0 ... 880,0 MHz	50	55	—	dB
		880,0 ... 905,0 MHz	28	33	—	dB
		905,0 ... 915,0 MHz	18	21	—	dB
		980,0 ... 1000,0 MHz	20	22	—	dB
		1000,0 ... 1025,0 MHz	30	37	—	dB
		1025,0 ... 1050,0 MHz	35	40	—	dB
		1050,0 ... 1500,0 MHz	50	57	—	dB
		1500,0 ... 2130,0 MHz	45	55	—	dB
		2130,0 ... 3000,0 MHz	40	48	—	dB
		3000,0 ... 4050,0 MHz	35	41	—	dB
		4050,0 ... 5700,0 MHz	23	30	—	dB
Symmetry in band (referenced to the matched operating condition)						
	$ S_{31} / S_{21} $	925,0 ... 960,0 MHz	-2,3	0	1,2	dB
	$\arg(S_{31}/S_{21})$	925,0 ... 960,0 MHz	170	180	192	°



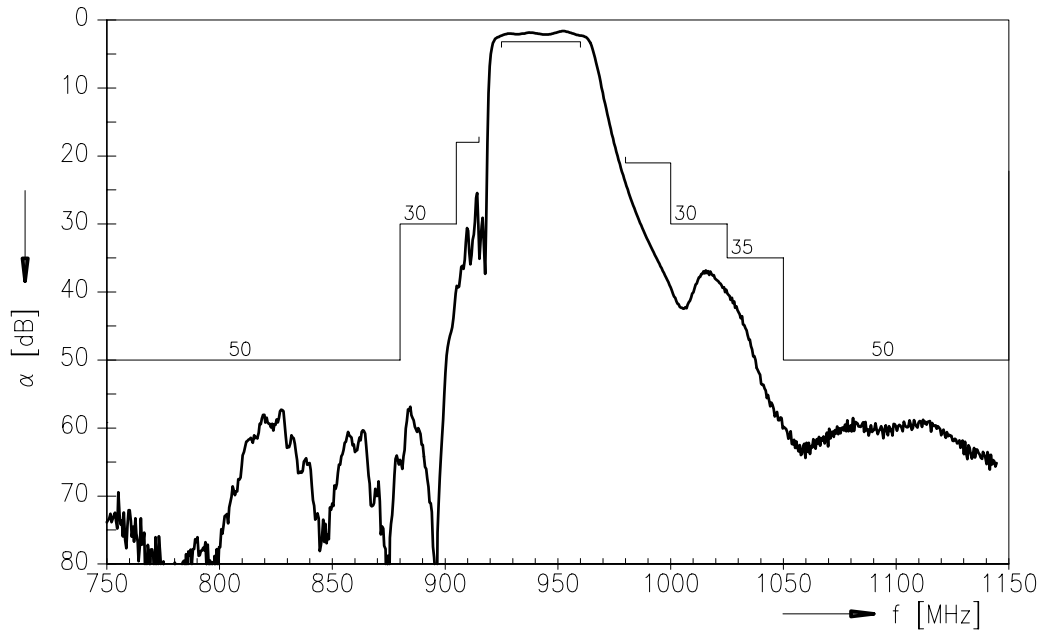
Characteristics

Operating temperature range: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 150 \Omega \parallel 80$ nH

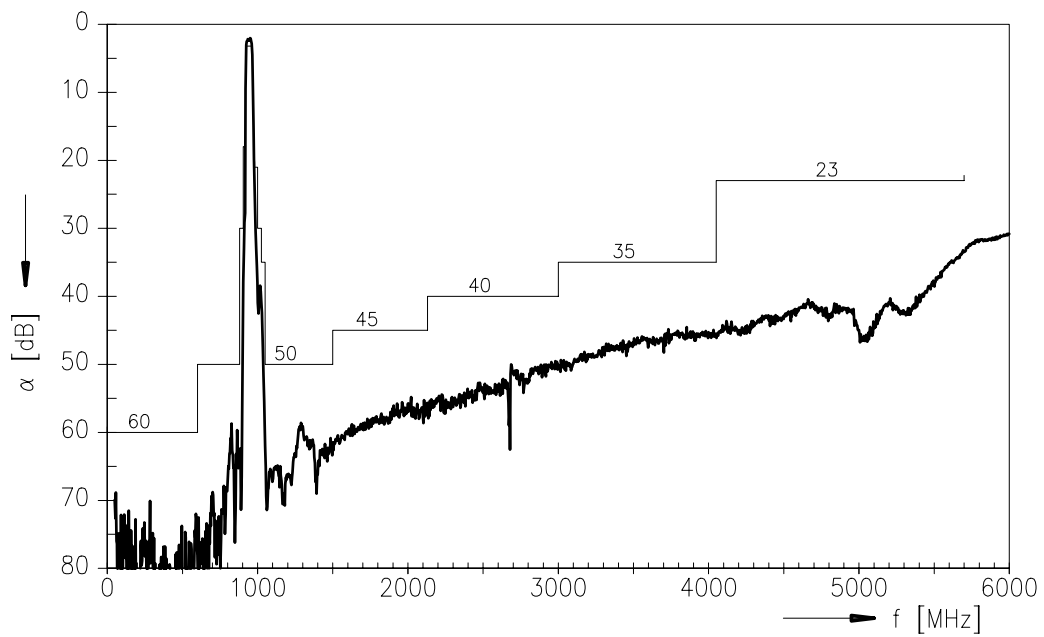
				min.	typ.	max.	
Center frequency			f_C	—	942,5	—	MHz
Maximum insertion attenuation			α_{max}	—	3,4	4,2	dB
	925,0 ... 960,0	MHz					
Amplitude ripple (p-p)			$\Delta\alpha$	—	1,8	2,6	dB
	925,0 ... 960,0	MHz					
Attenuation			α				
	0,0 ... 600,0	MHz		60	70	—	dB
	600,0 ... 880,0	MHz		50	55	—	dB
	880,0 ... 905,0	MHz		28	33	—	dB
	905,0 ... 915,0	MHz		18	21	—	dB
	980,0 ... 1000,0	MHz		19	21	—	dB
	1000,0 ... 1025,0	MHz		30	37	—	dB
	1025,0 ... 1050,0	MHz		35	40	—	dB
	1050,0 ... 1500,0	MHz		50	57	—	dB
	1500,0 ... 2130,0	MHz		45	55	—	dB
	2130,0 ... 3000,0	MHz		40	48	—	dB
	3000,0 ... 4050,0	MHz		35	41	—	dB
	4050,0 ... 5700,0	MHz		23	30	—	dB
Symmetry in band	(referenced to the matched operating condition)						
	$ S_{31} / S_{21} $	925,0 ... 960,0	MHz	-2,6	0	1,2	dB
	$\arg(S_{31}/S_{21})$	925,0 ... 960,0	MHz	170	180	192	°



Transfer function (spec at 25 °C)



Transfer function (wideband)





SAW Components

B4121

Low-Loss Filter for Mobile Communication

942,50 MHz

Data Sheet



Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.