



SAW Components

Data Sheet B7756

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue outline and a blue glow. They are set against a dark background that includes a faint, glowing globe and circuitry patterns. The overall effect is futuristic and high-tech.



SAW Components

B7756

Low-Loss Filter for Mobile Communication

1950,0 MHz

Data Sheet



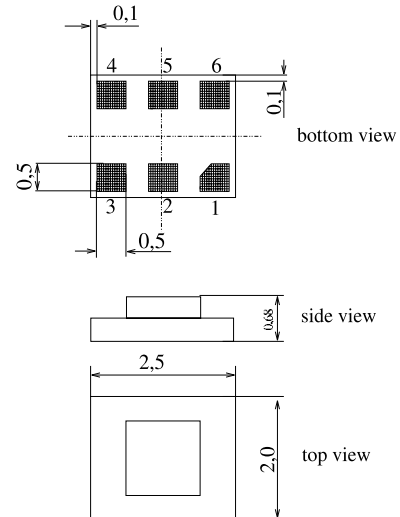
Chip sized SAW package DCS6K

Features

- Low-loss RF filter for W-CDMA mobile telephone system, transmit path
- Usable passband 60 MHz
- Excellent symmetry
- Balanced to unbalanced operation
- Impedance transformation from 200Ω to 50 Ω
- Package for **Surface Mounted Technology**
- **Chip Sized SAW Package**

Terminals

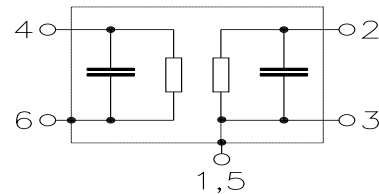
- Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B7756	B39202-B7756-C910	C61157-A7-A122	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	°C	Machine Model, 10 pulses ¹⁾
Storage temperature range	T_{stg}	- 40 / +100	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50	V	
Source power	P_S	10	dBm	

1) acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



SAW Components

B7756

Low-Loss Filter for Mobile Communication

1950,0 MHz

Data Sheet



Characteristics

Operating temperature range: $T = + 25^{\circ}\text{C}$
Terminating source impedance: $Z_S = 200\Omega \parallel 6,8\text{nH}$
Terminating load impedance: $Z_L = 50\Omega$

		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	2,6	3,0	dB
	1920,0 ... 1980,0 MHz	—	2,6	3,0	dB
Amplitude ripple (p-p)	Δ	—	0,6	0,9	dB
	1920,0 ... 1980,0 MHz	—	0,6	0,9	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5\text{MHz}}$	—	0,3	0,5	dB
	1920,0 ... 1980,0 MHz	—	0,3	0,5	dB
Input VSWR		—	1,8	2,1	
	1920,0 ... 1980,0 MHz	—	1,8	1,8	1)
Output VSWR		—	1,9	2,2	
	1920,0 ... 1980,0 MHz	—	1,6	1,8	1)
Input amplitude balance (S_{31}/S_{21})		-0,8	0	0,8	dB
	1920,0 ... 1980,0 MHz	-0,8	0	0,8	dB
Input phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-10,0	0	10,0	degree
	1920,0 ... 1980,0 MHz	-10,0	0	10,0	degree
Attenuation	α				
	50,0 ... 1000,0 MHz	60	65	—	dB
	1000,0 ... 1410,0 MHz	45	49	—	dB
	1410,0 ... 1580,0 MHz	35	41	—	dB
	1580,0 ... 1880,0 MHz	25	27	—	dB
	2110,0 ... 2170,0 MHz	35	37	—	dB
	2170,0 ... 2500,0 MHz	32	36	—	dB
	2500,0 ... 3500,0 MHz	32	36	—	dB
	3500,0 ... 6000,0 MHz	40	44	—	dB

1) with add. parallel inductance of 12nH at single ended output



SAW Components

B7756

Low-Loss Filter for Mobile Communication

1950,0 MHz

Data Sheet



Characteristics

Operating temperature range: $T = -25$ to $+85$ °C
Terminating source impedance: $Z_S = 200\Omega \parallel 6,8nH$
Terminating load impedance: $Z_L = 50\Omega$

		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,6	3,0	dB
	1920,0 ... 1980,0 MHz	—	2,6	3,0	dB
Amplitude ripple (p-p)	Δ	—	0,6	1,0	dB
	1920,0 ... 1980,0 MHz	—	0,6	1,0	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5MHz}$	—	0,3	0,5	dB
	1920,0 ... 1980,0 MHz	—	0,3	0,5	dB
Input VSWR		—	1,8	2,1	
	1920,0 ... 1980,0 MHz	—	1,8	2,1	
	1920,0 ... 1980,0 MHz	—	1,6	1,8	1)
Output VSWR		—	1,9	2,2	
	1920,0 ... 1980,0 MHz	—	1,9	2,2	
	1920,0 ... 1980,0 MHz	—	1,6	1,8	1)
Input amplitude balance (S_{31}/S_{21})		-0,8	0	0,8	dB
	1920,0 ... 1980,0 MHz	-0,8	0	0,8	dB
Input phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10,0	0	10,0	degree
	1920,0 ... 1980,0 MHz	-10,0	0	10,0	degree
Attenuation	α				
	50,0 ... 1000,0 MHz	60	65	—	dB
	1000,0 ... 1410,0 MHz	45	49	—	dB
	1410,0 ... 1580,0 MHz	35	41	—	dB
	1580,0 ... 1880,0 MHz	25	27	—	dB
	2110,0 ... 2170,0 MHz	35	37	—	dB
	2170,0 ... 2500,0 MHz	32	36	—	dB
	2500,0 ... 3500,0 MHz	32	36	—	dB
	3500,0 ... 6000,0 MHz	40	44	—	dB

1) with add. parallel inductance of 12nH at single ended output



SAW Components

B7756

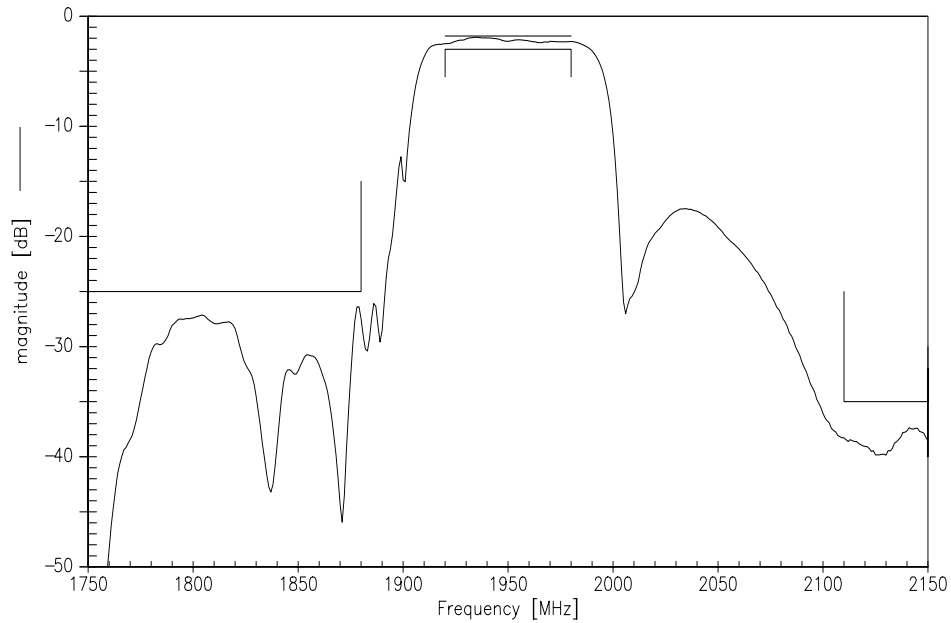
Low-Loss Filter for Mobile Communication

1950,0 MHz

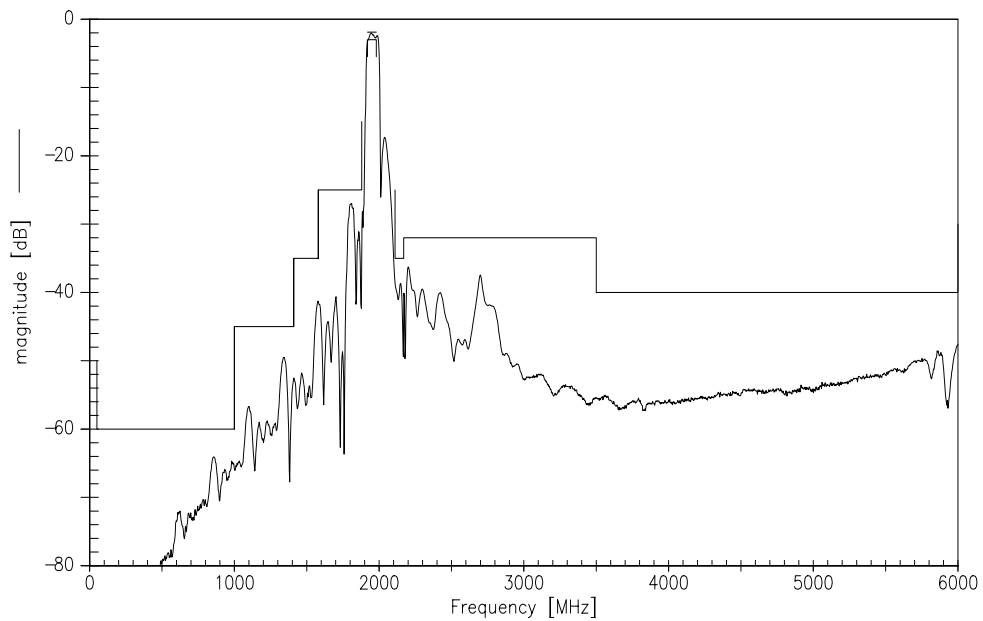
Data Sheet

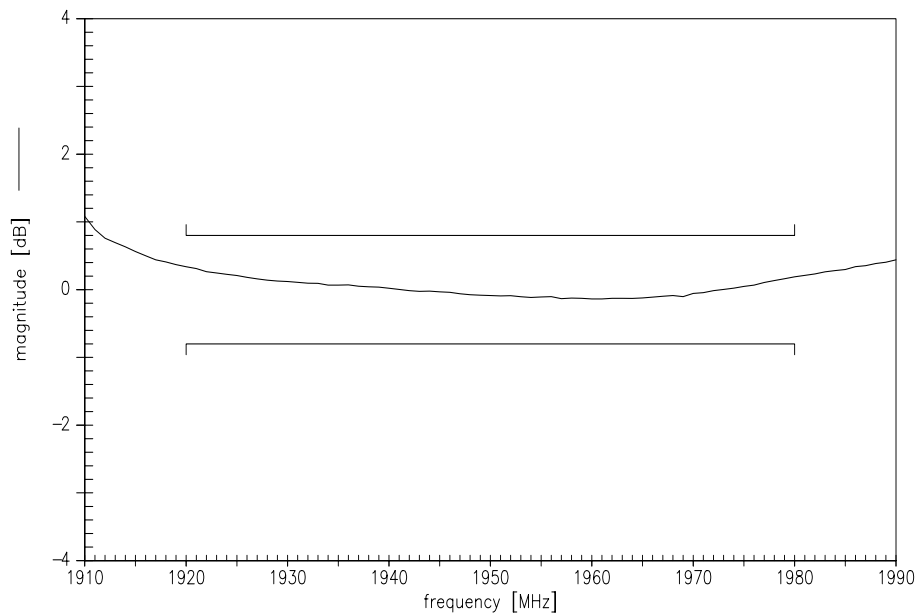
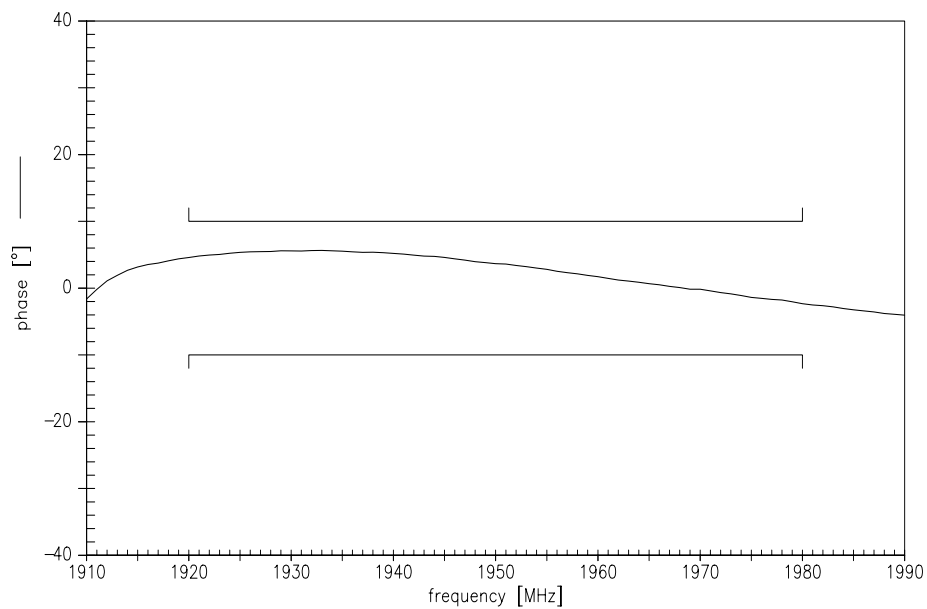


Transfer function



Transfer function



**Input amplitude balance($|S_{31}/S_{21}|$)****Input phase balance($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)**



SAW Components	B7756
Low-Loss Filter for Mobile Communication	1950,0 MHz
Data Sheet	SMD

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

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

© EPCOS AG 2004. 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.