



SAW Components

Data Sheet B9021





SAW Components

B9021

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



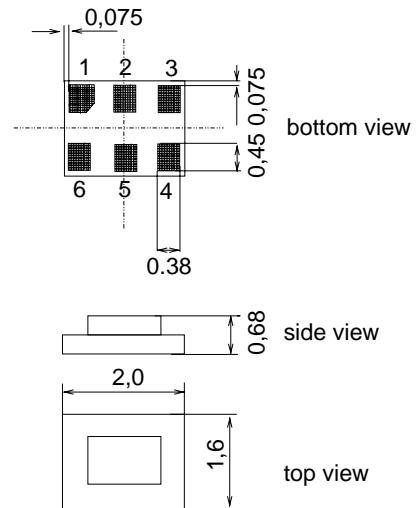
Chip Sized SAW Package DCS6S

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- High selectivity
- Low amplitude ripple
- Usable passband 75 MHz
- Unbalanced to balanced operation
- No external matching required
- Suitable for GPRS class 1 to 12
- Package for **Surface Mounted Technology (SMT)**

Terminals

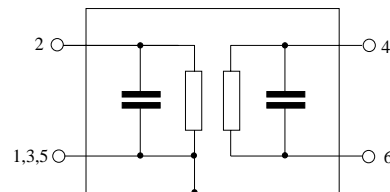
- Gold-plated Ni



Dimensions in mm, approx. weight 0,008 g

Pin configuration

- 2 Input
- 1, 3 Input ground
- 4, 6 Balanced output
- 1, 3, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9021	B39182-B9021-K210	C61157-A7-A115	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 25 / + 85	°C	Machine Model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V^*_{ESD}	50*	V	
Input power max at				
GSM850, GSM900	P_{IN}	15	dBm	
GSM1800, GSM1900	P_{IN}	12	dBm	
Tx bands				

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



SAW Components

B9021

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



Characteristics

Operating Temperature Range: $T = 25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50 \Omega$ (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}				
1805,0 ... 1880,0 MHz		—	2,3	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	0,7	1,6	dB
Input VSWR					
1805,0 ... 1880,0 MHz		—	2,5	2,7	
Output VSWR					
1805,0 ... 1880,0 MHz		—	2,3	2,5	
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)					
1805,0 ... 1880,0 MHz		-15	-6 / +8	+15	degree
Output amplitude balance ($ S_{31}/S_{21} $)					
1805,0 ... 1880,0 MHz		-2,0	-1,2 / +1,2	2,0	dB
Attenuation	α				
10,0 ... 1400,0 MHz		35	39	—	dB
1400,0 ... 1705,0 MHz		27	36	—	dB
1705,0 ... 1785,0 MHz		14	16	—	dB
1920,0 ... 1980,0 MHz		16	21	—	dB
1980,0 ... 2000,0 MHz		23	27	—	dB
2000,0 ... 2245,0 MHz		25	30	—	dB
2245,0 ... 3400,0 MHz		30	34	—	dB
3400,0 ... 6000,0 MHz		25	35	—	dB



SAW Components

B9021

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



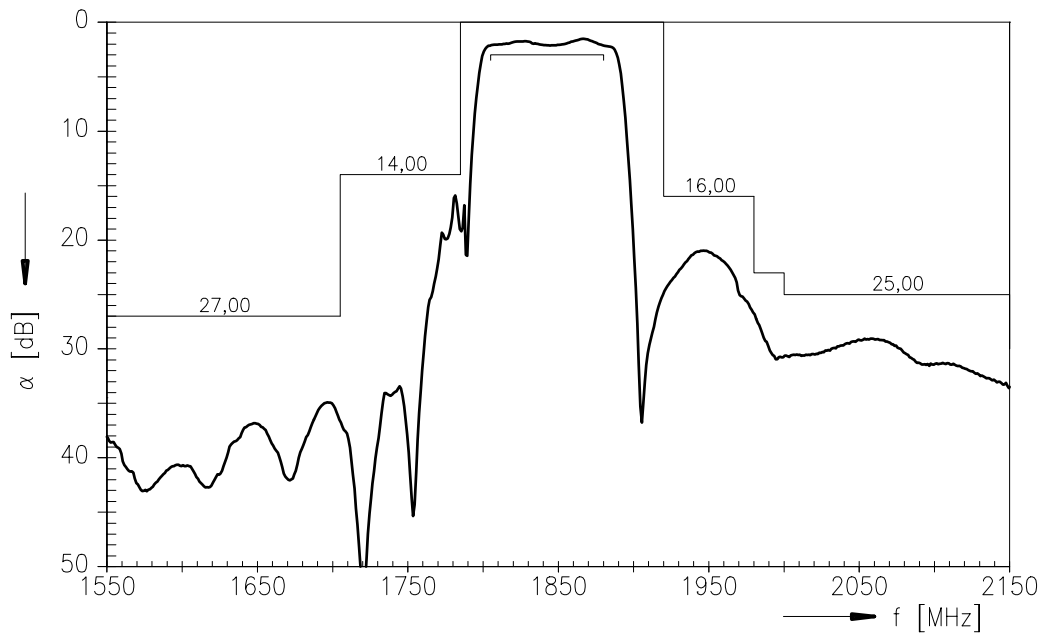
Characteristics

Operating Temperature Range: $T = -25$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50 \Omega$ (balanced)

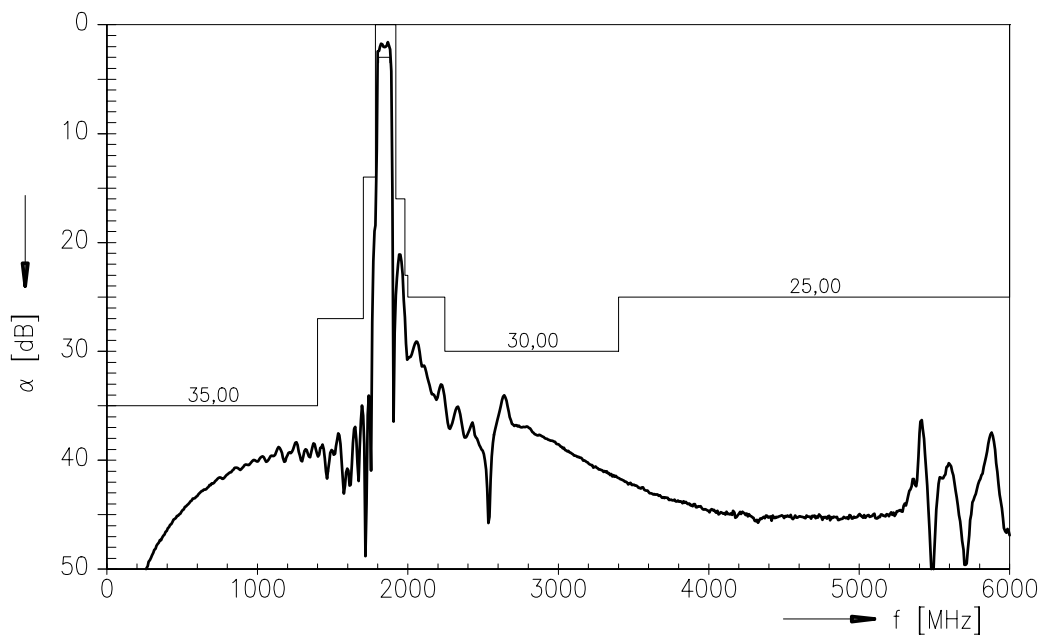
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,4	3,5	dB
1805,0 ... 1880,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,8	2,1	dB
1805,0 ... 1880,0 MHz					
Input VSWR		—	2,5	2,7	
1805,0 ... 1880,0 MHz					
Output VSWR		—	2,3	2,5	
1805,0 ... 1880,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-15	-7 / +8	+15	degree
1805,0 ... 1880,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-2,5	-1,6 / +1,2	2,0	dB
1805,0 ... 1880,0 MHz					
Attenuation	α				
10,0 ... 1400,0 MHz		35	39	—	dB
1400,0 ... 1705,0 MHz		27	36	—	dB
1705,0 ... 1785,0 MHz		12	16	—	dB
1920,0 ... 1980,0 MHz		16	21	—	dB
1980,0 ... 2000,0 MHz		23	26	—	dB
2000,0 ... 2245,0 MHz		25	30	—	dB
2245,0 ... 3400,0 MHz		30	34	—	dB
3400,0 ... 6000,0 MHz		25	35	—	dB



Transfer function



Transfer function (wide band)





SAW Components

B9021

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



Published by EPCOS AG

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

TEL ++49 89 636 09, FAX (0 89) 636-2 26 89

© 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.