



SAW Components

Data Sheet B9021





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Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



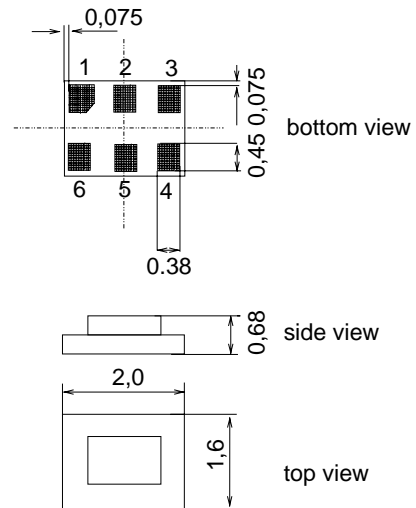
Chip Sized SAW Package DCS6S

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

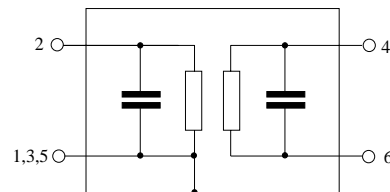
- Gold-plated Ni



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



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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}	—	2,3	3,0	dB
1805,0 ... 1880,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,7	1,6	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	-6 / +8	+15	degree
1805,0 ... 1880,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-2,0	-1,2 / +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		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



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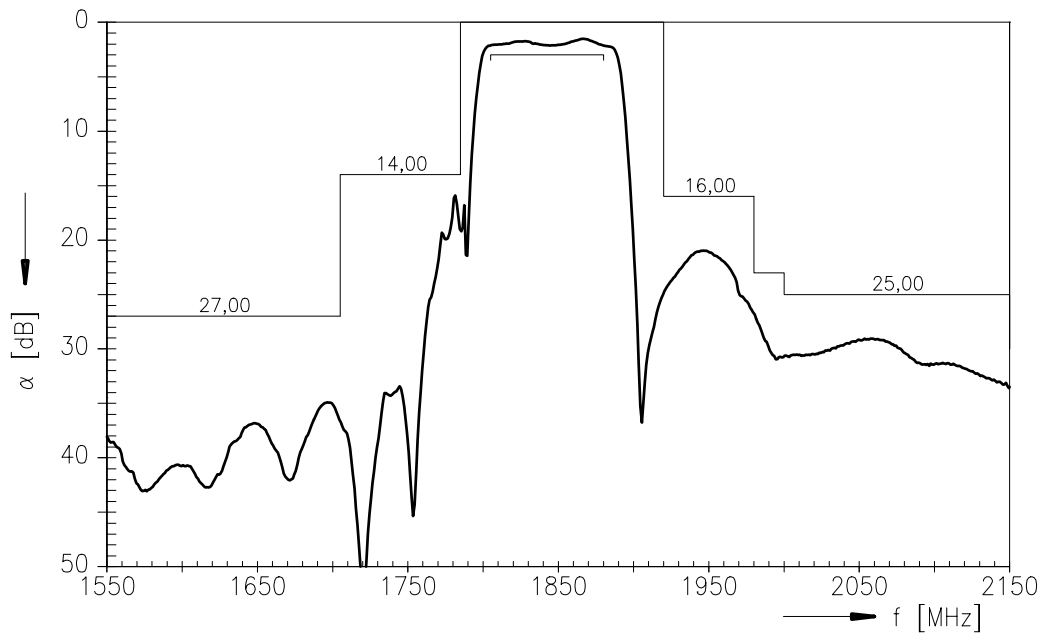
Characteristics

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)

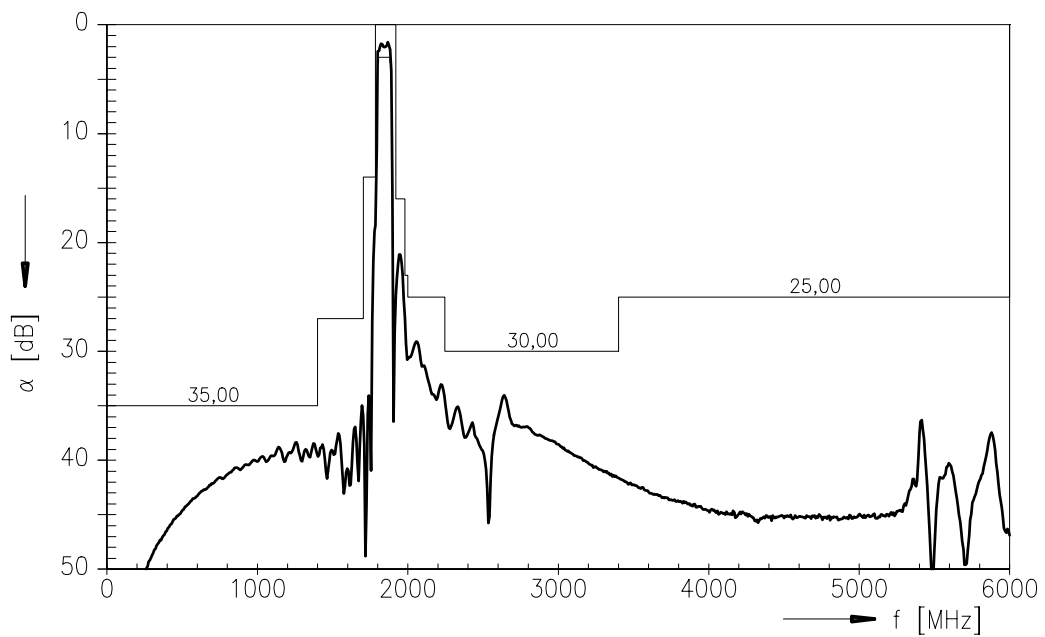
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,4	3,5	dB
1805,0 ... 1880,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,8	2,1	dB
1805,0 ... 1880,0 MHz					
Input VSWR		—	2,5	2,7	
1805,0 ... 1880,0 MHz					
Output VSWR		—	2,3	2,5	
1805,0 ... 1880,0 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)





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