EPCOS

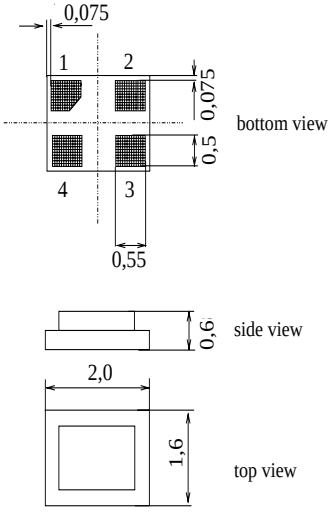
SAW Components

Data Sheet B9067

Chip sized SAW package DCS4G

Features

- Low-loss RF filter for W-CDMA mobile telephone system, transmit path
- High stopband attenuation
- Usable passband 60 MHz
- Unbalanced/unbalanced operation
- Package size: 2 mm x 1.6 mm (4 pin, diagonal pinning)
- High power durability
- RoHS compatible



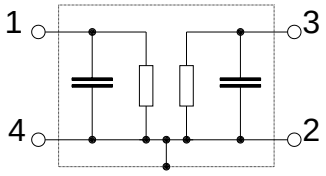
Dimensions in mm, approx weight 0,007g

Terminals

- Ni, gold-plated

Pin configuration

1	Input
3	Output
2,4	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B9067	B39202-B9067-E913	C61157-A7-A105	F61074-V8152-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100*	V	Machine Model, 10 pulses
Input power	P_S	30	dBm	source impedance 50 Ω

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

Characteristics

Operating temperature range: T = +25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

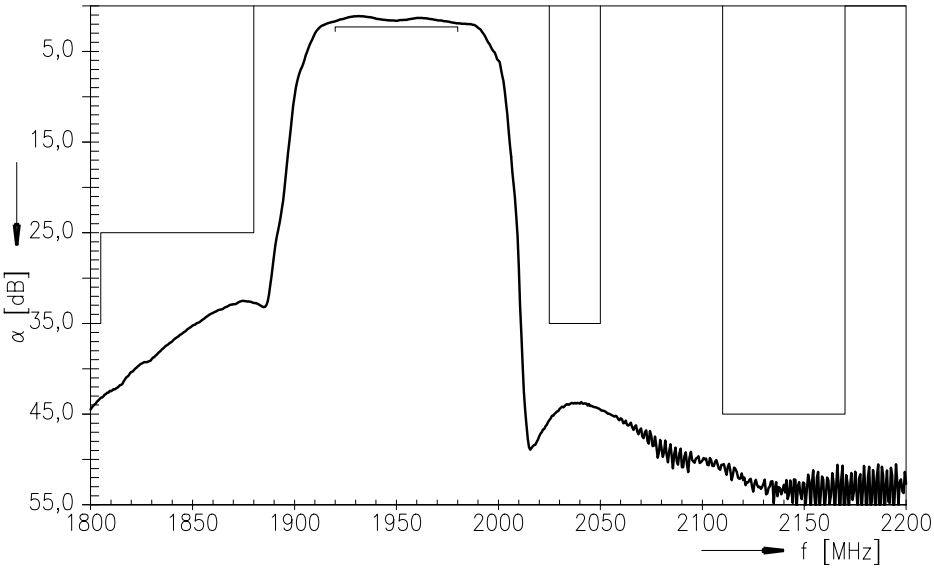
		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	1,9	2,2	dB
Ripple	p-p				
1920,0 ... 1980,0 MHz		—	0,8	1,1	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,9	2,3	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,9	2,3	
Attenuation	α				
0,0 ...1575,0 MHz		30	35	—	dB
1575,0 ...1805,0 MHz		35	39	—	dB
1805,0 ...1880,0 MHz		25	32	—	dB
2025,0 ...2050,0 MHz		35	44	—	dB
2110,0 ...2170,0 MHz		45	50	—	dB
2300,0 ...2490,0 MHz		40	46	—	dB
2490,0 ...2740,0 MHz		35	41	—	dB
2740,0 ...3960,0 MHz		25	31	—	dB
3960,0 ...5000,0 MHz		20	25	—	dB
5000,0 ...6000,0 MHz		18	23	—	dB

Characteristics

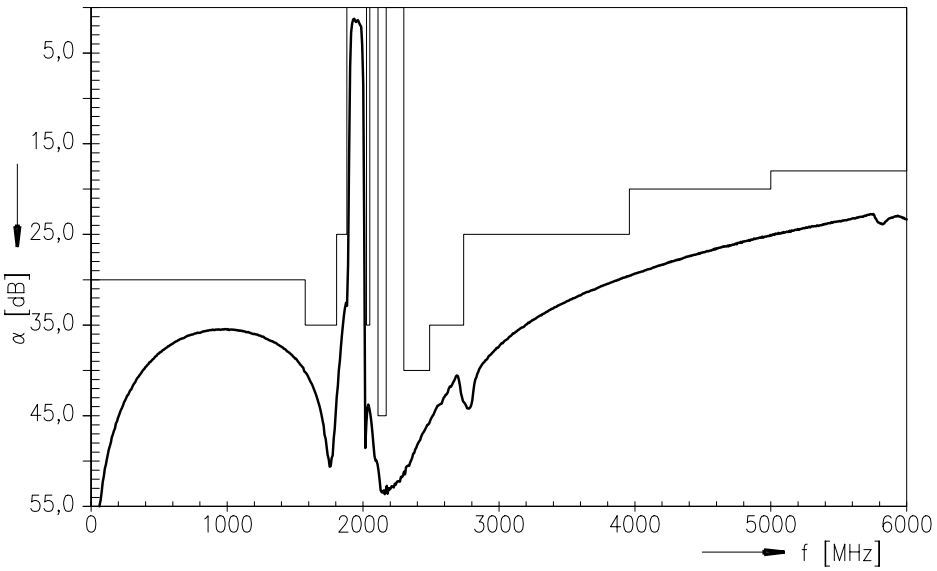
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	1,9	2,3	dB
Ripple	p-p				
1920,0 ... 1980,0 MHz		—	0,8	1,2	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,9	2,3	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,9	2,3	
Attenuation	α				
0,0 ...1575,0 MHz		30	35	—	dB
1575,0 ...1805,0 MHz		35	39	—	dB
1805,0 ...1880,0 MHz		25	32	—	dB
2025,0 ...2050,0 MHz		35	44	—	dB
2110,0 ...2170,0 MHz		45	50	—	dB
2300,0 ...2490,0 MHz		40	46	—	dB
2490,0 ...2740,0 MHz		35	41	—	dB
2740,0 ...3960,0 MHz		25	31	—	dB
3960,0 ...5000,0 MHz		20	25	—	dB
5000,0 ...6000,0 MHz		18	23	—	dB

Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):



Characteristics with Matching Network

Operating temperature range: T = +25 ˚C
Terminating source impedance: Z_S = 50 Ω || 12 nH
Terminating load impedance: Z_L = 50 Ω

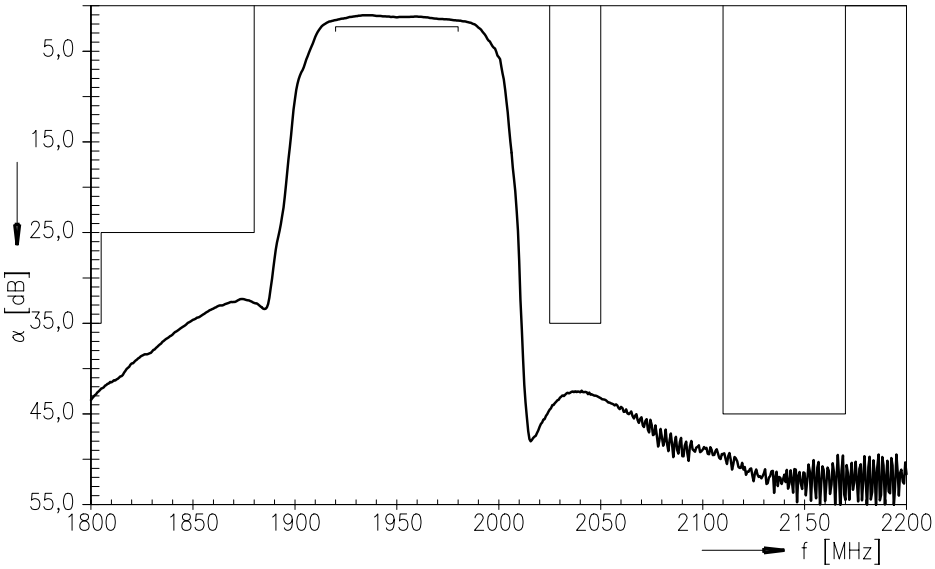
		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	1,7	2,0	dB
Ripple	p-p				
1920,0 ... 1980,0 MHz		—	0,6	0,9	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,4	1,8	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,5	1,9	
Attenuation	α				
0,0 ...1575,0 MHz		30	34	—	dB
1575,0 ...1805,0 MHz		35	38	—	dB
1805,0 ...1880,0 MHz		25	32	—	dB
2025,0 ...2050,0 MHz		35	43	—	dB
2110,0 ...2170,0 MHz		45	49	—	dB
2300,0 ...2490,0 MHz		40	45	—	dB
2490,0 ...2740,0 MHz		35	40	—	dB
2740,0 ...3960,0 MHz		25	31	—	dB
3960,0 ...5000,0 MHz		20	25	—	dB
5000,0 ...6000,0 MHz		18	23	—	dB

Characteristics with Matching Network

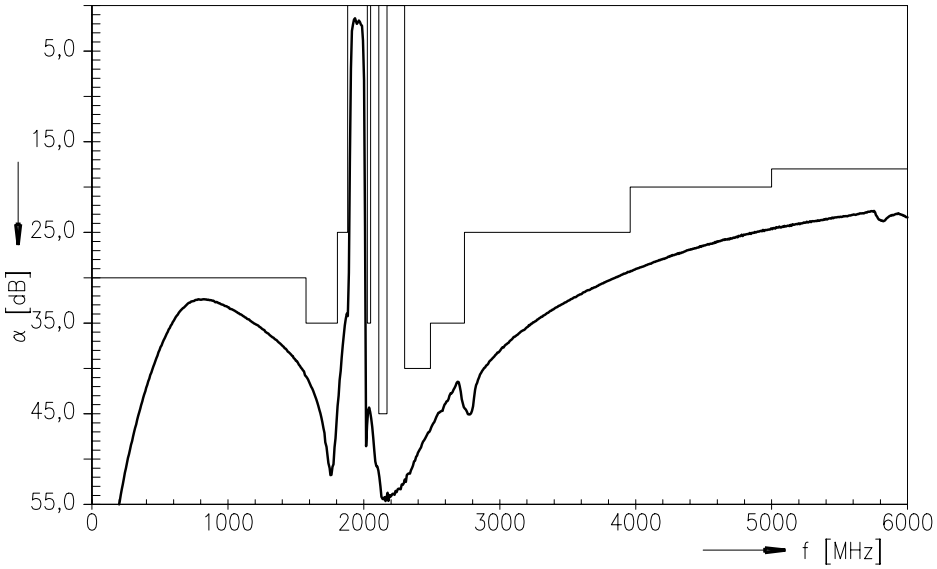
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω || 12 nH
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	1,7	2,3	dB
Ripple	p-p				
1920,0 ... 1980,0 MHz		—	0,6	1,2	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,4	1,8	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,5	1,9	
Attenuation	α				
0,0 ...1575,0 MHz		30	34	—	dB
1575,0 ...1805,0 MHz		35	38	—	dB
1805,0 ...1880,0 MHz		25	32	—	dB
2025,0 ...2050,0 MHz		35	43	—	dB
2110,0 ...2170,0 MHz		45	49	—	dB
2300,0 ...2490,0 MHz		40	45	—	dB
2490,0 ...2740,0 MHz		35	40	—	dB
2740,0 ...3960,0 MHz		25	31	—	dB
3960,0 ...5000,0 MHz		20	25	—	dB
5000,0 ...6000,0 MHz		18	23	—	dB

Transfer function with matching network (measured at room temperature):



Transfer function with matching network (wideband, measured at room temperature):



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