EPCOS

SAW Components

Preliminary Data B9019

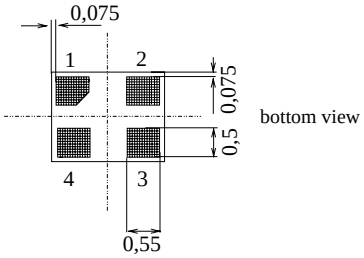
Preliminary Data

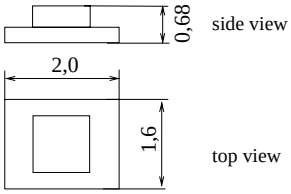
SMD

Chip sized SAW package DCS4F

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- High selectivity up to 6 GHz
- Low amplitude ripple
- Usable passband 75 MHz
- Suitable for GPRS class 1 to 12
- Package for **S**urface **M**ount **T**echnology (**SMT**)





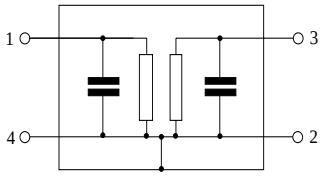
Dimensions in mm, approx. weight 0,006 g

Terminals

- Ni, gold-plated

Pin configuration

1	Input
3	Output
2,4	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B9019	B39182-B9019-E610	C61157-A7-A113	F61074-V8152-Z000

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

Maximum ratings

Operating temperature range	T	– 30/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}*	50*	V	Machine Model, 10 pulses
Input Power at				
GSM850, GSM900	P_{IN}	15	dBm	peak power of GSM signal,
GSM1800, GSM1900	P_{IN}	12	dBm	duty cycle 4:8
Tx bands				

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

Characteristics

Operating Temperature Range: T = +25 ± 2 °C
Terminating source impedance: Z_S = 50Ω (unbalanced) + 2,2 nH
Terminating load impedance: Z_L = 50Ω (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	1,9	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	0,6	1,2	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	1,8	2,0	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Attenuation	α				
0,0 ... 1480,0 MHz		30	33	—	dB
1480,0 ... 1705,0 MHz		28	32	—	dB
1705,0 ... 1785,0 MHz		12	14	—	dB
1920,0 ... 1980,0 MHz		18	24	—	dB
1980,0 ... 2160,0 MHz		25	27	—	dB
2160,0 ... 2400,0 MHz		29	34	—	dB
2400,0 ... 2500,0 MHz		30	33	—	dB
2500,0 ... 3610,0 MHz		25	29	—	dB
3610,0 ... 3760,0 MHz		30	38	—	dB
3760,0 ... 6000,0 MHz		30	38	—	dB

Characteristics

Operating Temperature Range: T = -10 to +80˚C
Terminating source impedance: Z_S = 50Ω (unbalanced) + 2,2 nH
Terminating load impedance: Z_L = 50Ω (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,2	2,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	1,0	1,7	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	1,8	2,0	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Attenuation	α				
0,0 ... 1480,0 MHz		30	33	—	dB
1480,0 ... 1705,0 MHz		28	32	—	dB
1705,0 ... 1785,0 MHz		11	13	—	dB
1920,0 ... 1980,0 MHz		18	24	—	dB
1980,0 ... 2160,0 MHz		24	26	—	dB
2160,0 ... 2400,0 MHz		29	34	—	dB
2400,0 ... 2500,0 MHz		30	33	—	dB
2500,0 ... 3610,0 MHz		25	29	—	dB
3610,0 ... 3760,0 MHz		30	38	—	dB
3760,0 ... 6000,0 MHz		30	38	—	dB

Characteristics

Operating Temperature Range: T = -20 to +75˚C
Terminating source impedance: Z_S = 50Ω (unbalanced) + 2,2 nH
Terminating load impedance: Z_L = 50Ω (unbalanced)

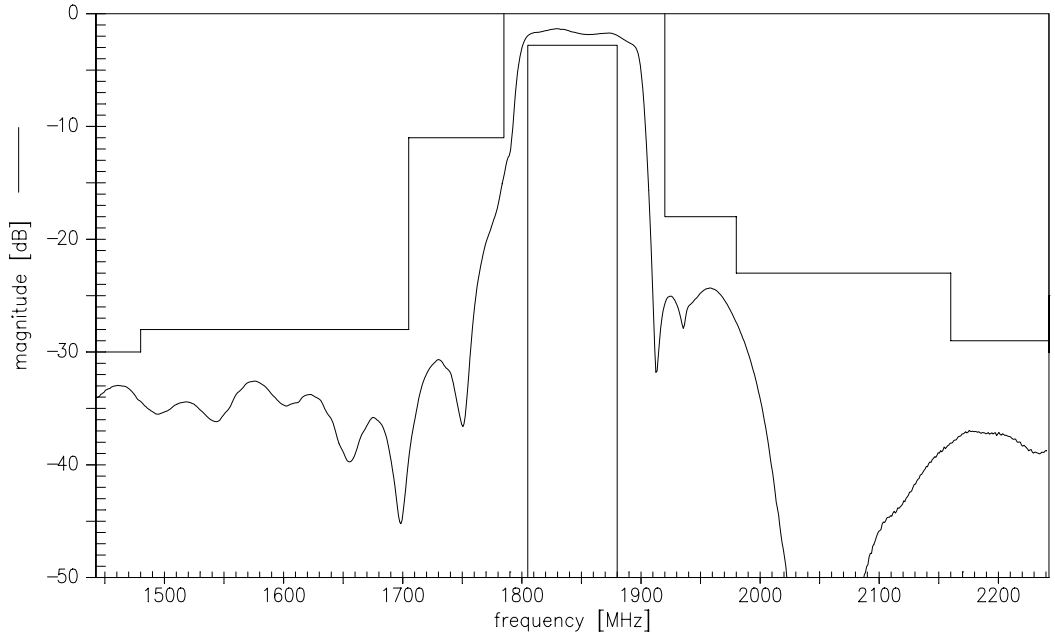
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,3	2,9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	1,1	1,8	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	1,8	2,1	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Attenuation	α				
0,0 ... 1480,0 MHz		30	33	—	dB
1480,0 ... 1705,0 MHz		28	32	—	dB
1705,0 ... 1785,0 MHz		11	13	—	dB
1920,0 ... 1980,0 MHz		18	24	—	dB
1980,0 ... 2160,0 MHz		24	26	—	dB
2160,0 ... 2400,0 MHz		29	34	—	dB
2400,0 ... 2500,0 MHz		30	33	—	dB
2500,0 ... 3610,0 MHz		25	29	—	dB
3610,0 ... 3760,0 MHz		30	38	—	dB
3760,0 ... 6000,0 MHz		30	38	—	dB

Characteristics

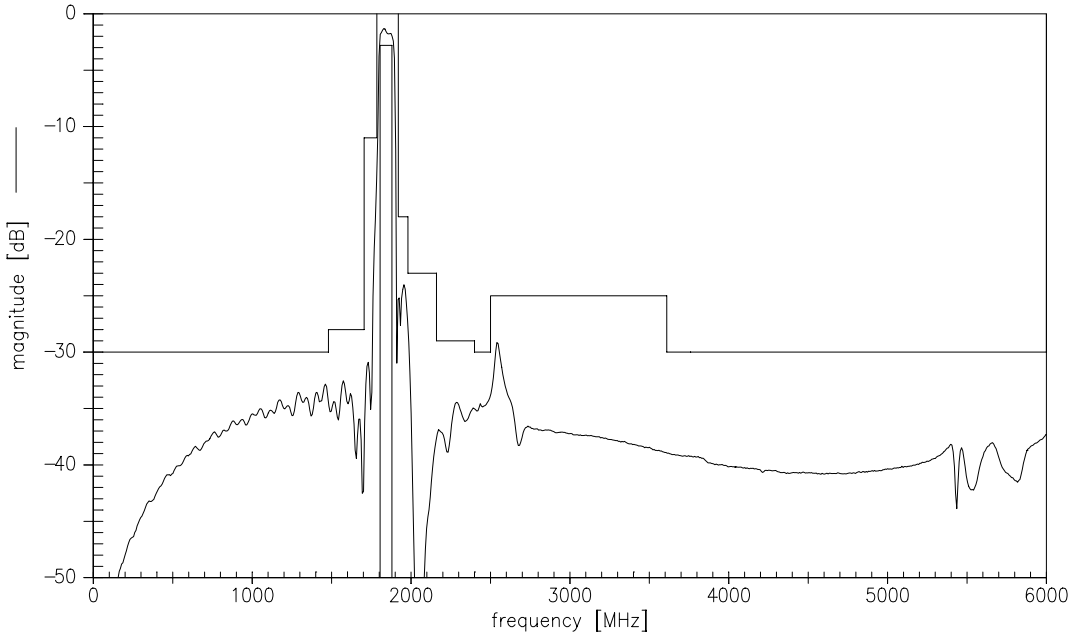
Operating Temperature Range: T = -30 to +85°C
Terminating source impedance: Z_S = 50Ω (unbalanced) + 2,2 nH
Terminating load impedance: Z_L = 50Ω (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,5	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	1,3	2,1	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,4	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,5	
Attenuation	α				
0,0 ... 1480,0 MHz		30	33	—	dB
1480,0 ... 1705,0 MHz		28	32	—	dB
1705,0 ... 1785,0 MHz		10	13	—	dB
1920,0 ... 1980,0 MHz		18	24	—	dB
1980,0 ... 2160,0 MHz		24	26	—	dB
2160,0 ... 2400,0 MHz		29	34	—	dB
2400,0 ... 2500,0 MHz		30	33	—	dB
2500,0 ... 3610,0 MHz		25	29	—	dB
3610,0 ... 3760,0 MHz		30	38	—	dB
3760,0 ... 6000,0 MHz		30	38	—	dB

Transfer function (spec for 25°C)



Transfer function (wideband)



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