



SAW Components

Preliminary Data B9019





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Low-Loss Filter for Mobile Communication

1842,5 MHz

Preliminary Data



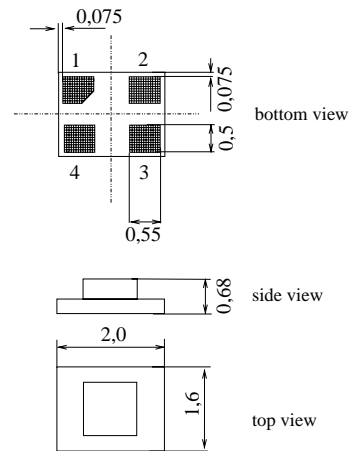
Chip sized SAW package DCS4F

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 **Surface Mount Technology (SMT)**

Terminals

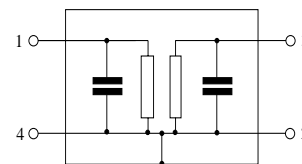
- Ni, gold-plated



Dimensions in mm, approx. weight 0,006 g

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 Sensitive Device (ESD)

Maximum ratings

Operating temperature range	T	- 30/+ 85	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	3	V	peak power of GSM signal, duty cycle 4:8
ESD voltage	V_{ESD}^*	50*	V	
Input Power 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: $T = +25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced) + 2,2 nH
 Terminating load impedance: $Z_L = 50\Omega$ (unbalanced)

				min.	typ.	max.	
Center frequency	f_c			—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}			—	1,9	2,5	dB
		1805,0 ... 1880,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$			—	0,6	1,2	dB
		1805,0 ... 1880,0	MHz				
Input VSWR				—	1,8	2,0	
		1805,0 ... 1880,0	MHz				
Output VSWR				—	2,1	2,3	
		1805,0 ... 1880,0	MHz				
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



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Operating Temperature Range: $T = -10$ to $+80^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced) + 2,2 nH
 Terminating load impedance: $Z_L = 50\Omega$ (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



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Operating Temperature Range: $T = -20$ to $+75^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced) + 2,2 nH
 Terminating load impedance: $Z_L = 50\Omega$ (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



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Operating Temperature Range: $T = -30$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced) + 2,2 nH
 Terminating load impedance: $Z_L = 50\Omega$ (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



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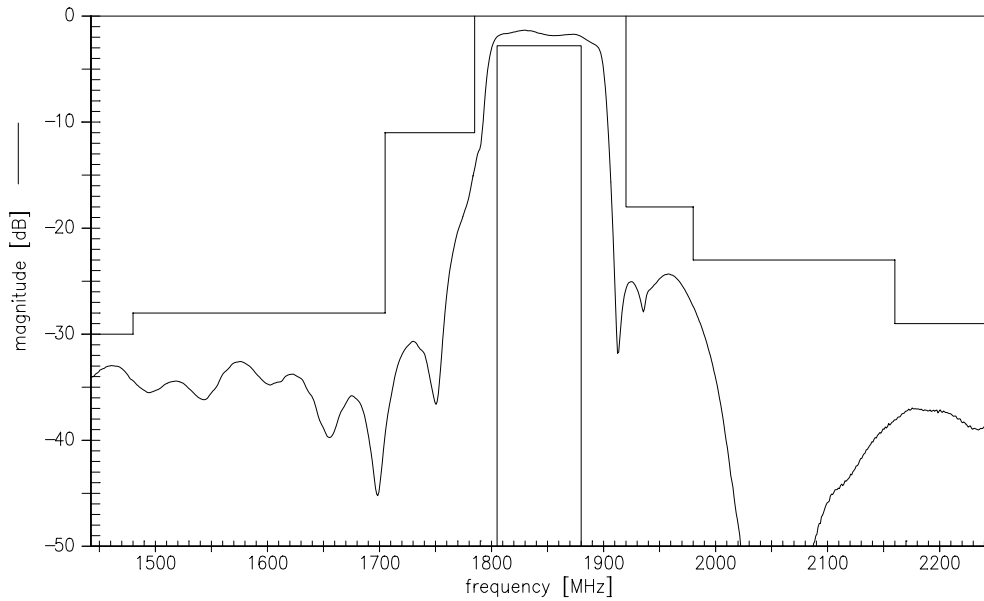
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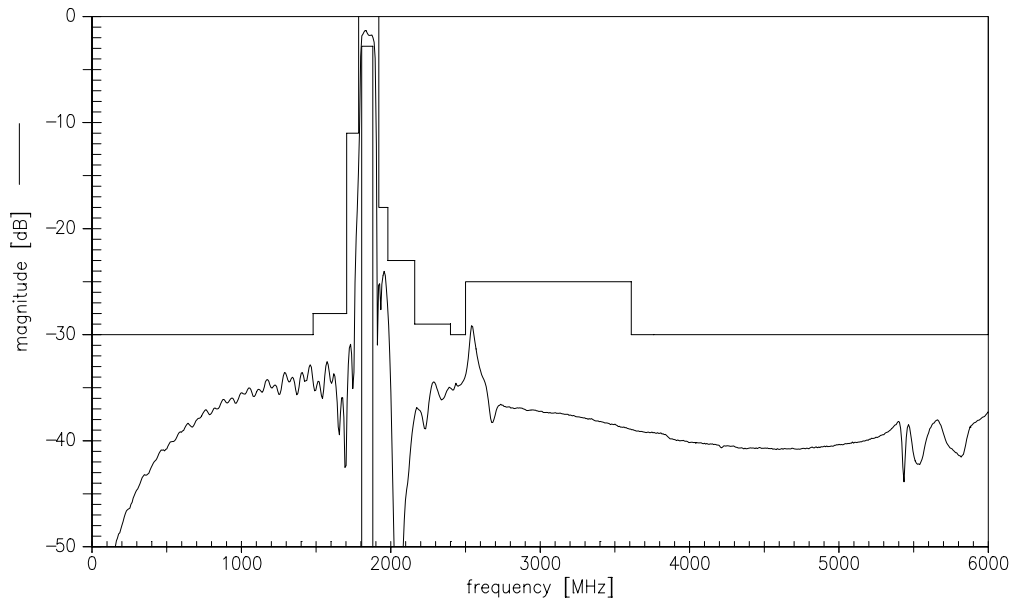
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Transfer function (spec for 25° C)



Transfer function (wideband)





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