



SAW Components

Data Sheet B4166





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Low-Loss Filter for Mobile Communication

1842,50 MHz

Data Sheet



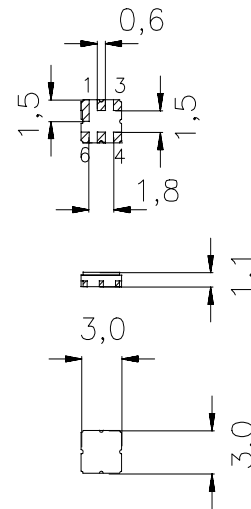
Ceramic package **DCC6C**

Features

- Low-loss RF filter for mobile telephone PCN system, receive path
- High selectivity
- Usable passband: 75 MHz
- No matching network required for operation at 50 Ω
- Suitable for GPRS class 1 to 12
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

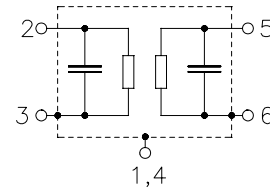
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037

Pin configuration

- 2 Input
- 5 Output
- 1, 3, 4, 6 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4166	B39182-B4166-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 80	°C	peak power of GSM signal duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
Input Power at				
GSM850, GSM900,	P_{IN}	15	dBm	
GSM1800, GSM1900	P_{IN}	12	dBm	
Tx bands				



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Characteristics

Operating temperature range: $T = 25 \pm 2^\circ \text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

				min.	typ.	max.		
Center frequency		f_c		—	1842,5	—	MHz	
Maximum insertion attenuation	1805,0 ... 1880,0		α_{\max}	—	2,9	3,3	dB	
Amplitude ripple (p-p)	1805,0 ... 1880,0		$\Delta\alpha$	—	0,9	1,3	dB	
Input VSWR	1805,0 ... 1880,0			—	2,0	2,2		
Output VSWR	1805,0 ... 1880,0			—	2,2	2,4		
Attenuation			α					
	10,0 ... 370,0			40,0	43,5	—	dB	
	370,0 ... 1300,0			37,0	38,5	—	dB	
	1300,0 ... 1705,0			30,0	36,0	—	dB	
	1705,0 ... 1785,0			12,0	14,0	—	dB	
	1920,0 ... 1980,0			12,0	25,0	—	dB	
	1980,0 ... 2530,0			23,0	28,0	—	dB	
	2530,0 ... 2680,0			31,0	35,0	—	dB	
	2680,0 ... 3400,0			28,0	34,0	—	dB	
	3400,0 ... 3975,0			24,0	30,0	—	dB	
	3975,0 ... 4200,0			23,0	27,0	—	dB	
	4200,0 ... 4920,0			15,0	19,0	—	dB	
	4920,0 ... 5200,0			10,0	17,0	—	dB	
	5200,0 ... 6000,0			5,0	11,0	—	dB	



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Operating temperature range: $T = -20$ to $+80^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}		—	3,2	3,9	dB
		1805,0 ... 1880,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,2	1,9	dB
		1805,0 ... 1880,0 MHz				
Input VSWR			—	2,1	2,3	
		1805,0 ... 1880,0 MHz				
Output VSWR			—	2,3	2,5	
		1805,0 ... 1880,0 MHz				
Attenuation	α					
		10,0 ... 370,0 MHz	40,0	43,5	—	dB
		370,0 ... 1300,0 MHz	37,0	38,5	—	dB
		1300,0 ... 1705,0 MHz	30,0	36,0	—	dB
		1705,0 ... 1785,0 MHz	10,0	13,0	—	dB
		1920,0 ... 1980,0 MHz	10,0	25,0	—	dB
		1980,0 ... 2530,0 MHz	23,0	28,0	—	dB
		2530,0 ... 2680,0 MHz	31,0	35,0	—	dB
		2680,0 ... 3400,0 MHz	28,0	34,0	—	dB
		3400,0 ... 3975,0 MHz	24,0	30,0	—	dB
		3975,0 ... 4200,0 MHz	23,0	27,0	—	dB
		4200,0 ... 4920,0 MHz	15,0	19,0	—	dB
		4920,0 ... 5200,0 MHz	10,0	17,0	—	dB
		5200,0 ... 6000,0 MHz	5,0	11,0	—	dB



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Characteristics

Operating temperature range: $T = -40$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}		—	3,2	4,5	dB
		1805,0 ... 1880,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,2	2,5	dB
		1805,0 ... 1880,0 MHz				
Input VSWR			—	2,1	2,5	
		1805,0 ... 1880,0 MHz				
Output VSWR			—	2,3	2,7	
		1805,0 ... 1880,0 MHz				
Attenuation	α					
		10,0 ... 370,0 MHz	40,0	43,5	—	dB
		370,0 ... 1300,0 MHz	37,0	38,5	—	dB
		1300,0 ... 1705,0 MHz	30,0	36,0	—	dB
		1705,0 ... 1785,0 MHz	9,0	13,0	—	dB
		1920,0 ... 1980,0 MHz	10,0	25,0	—	dB
		1980,0 ... 2530,0 MHz	23,0	28,0	—	dB
		2530,0 ... 2680,0 MHz	31,0	35,0	—	dB
		2680,0 ... 3400,0 MHz	28,0	34,0	—	dB
		3400,0 ... 3975,0 MHz	24,0	30,0	—	dB
		3975,0 ... 4200,0 MHz	23,0	27,0	—	dB
		4200,0 ... 4920,0 MHz	15,0	19,0	—	dB
		4920,0 ... 5200,0 MHz	10,0	17,0	—	dB
		5200,0 ... 6000,0 MHz	5,0	11,0	—	dB



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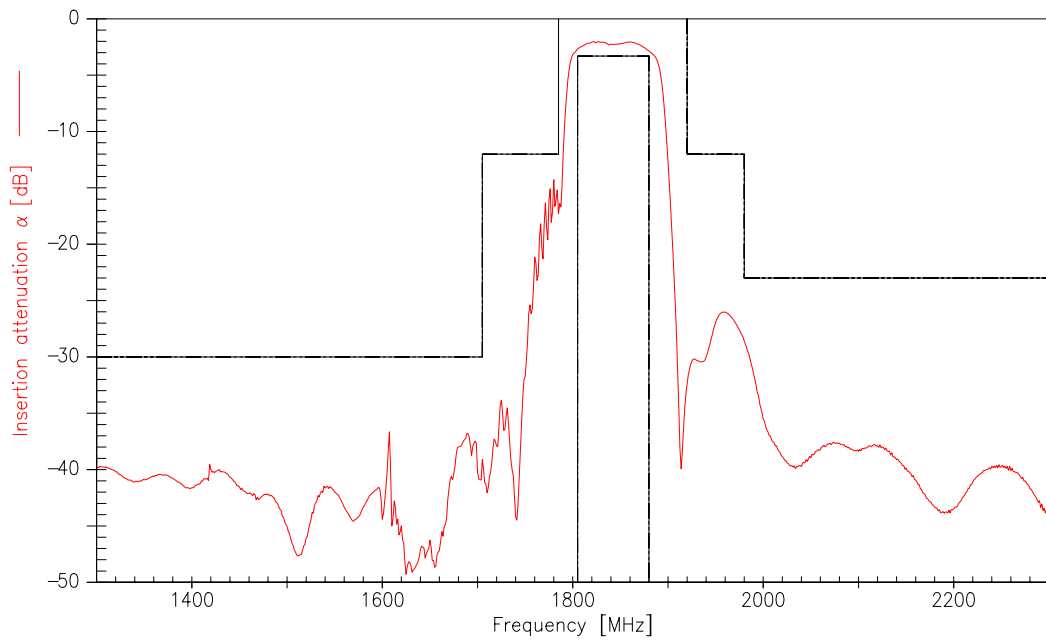
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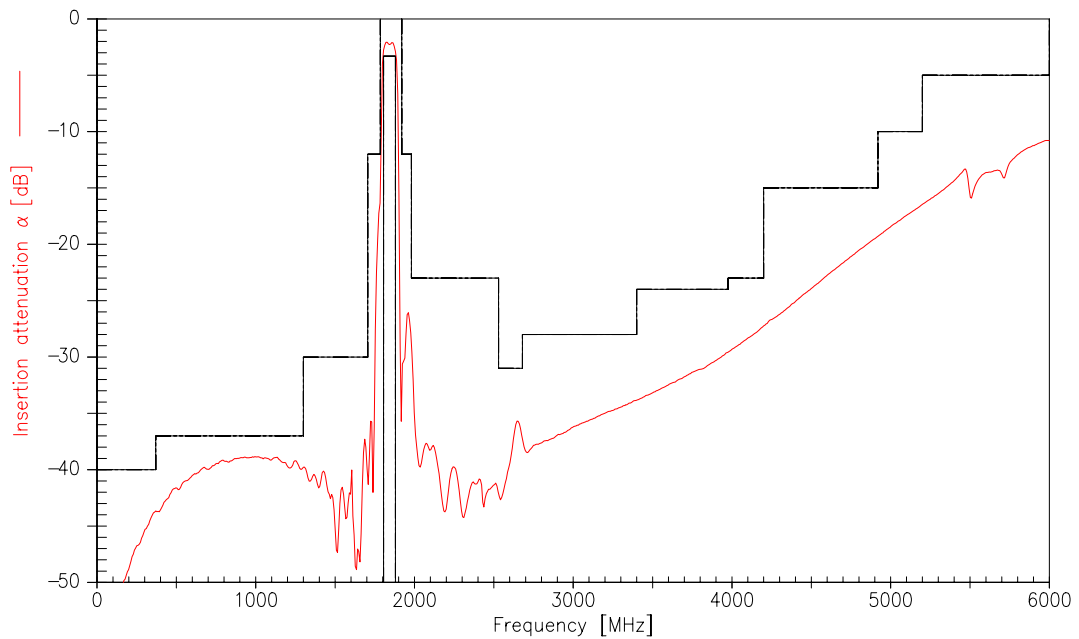
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Transfer function (spec for 25°C)



Transfer function (wideband)





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