EPCOS

SAW Components

Data Sheet B4166

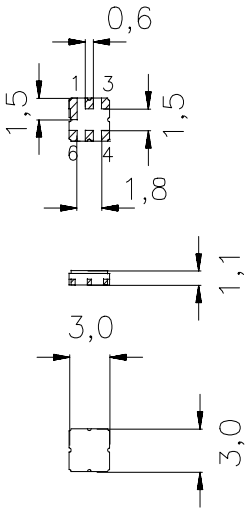
Ceramic package **DCC6C**

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
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

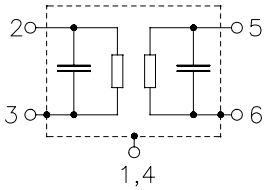
- Ni, gold-plated



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 **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	
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				

Characteristics

Operating temperature range: T = 25 +- 2˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

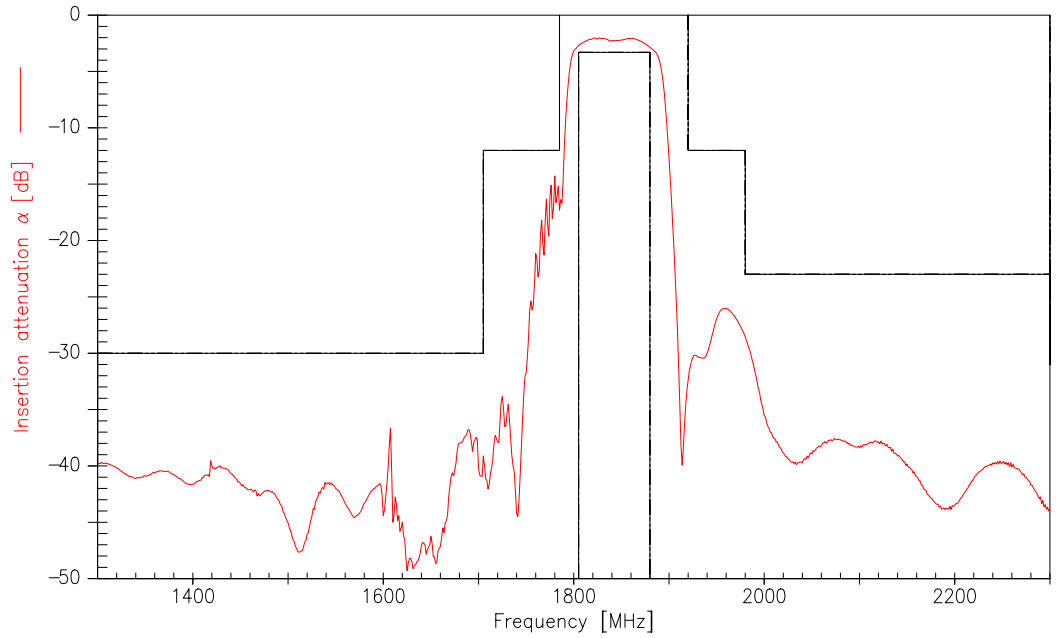
			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}					
1805,0 ...1880,0	MHz		—	2,9	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1805,0 ...1880,0	MHz		—	0,9	1,3	dB
Input VSWR						
1805,0 ...1880,0	MHz		—	2,0	2,2	
Output VSWR						
1805,0 ...1880,0	MHz		—	2,2	2,4	
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		12,0	14,0	—	dB
1920,0 ...1980,0	MHz		12,0	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

Characteristics

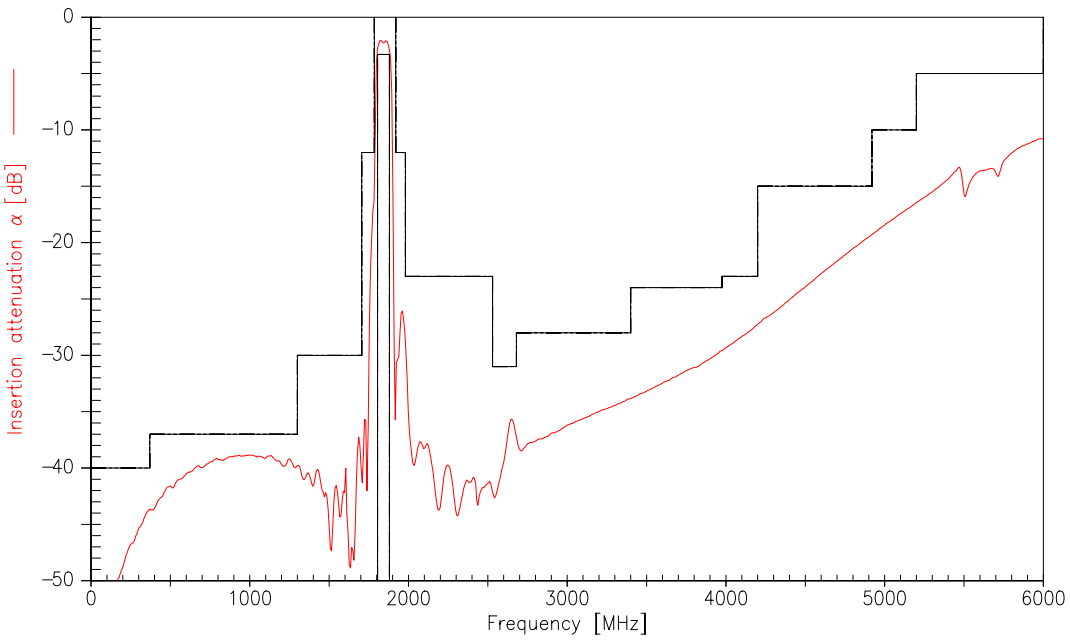
Operating temperature range: T = -40 to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

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

Transfer function (spec for 25˚C)



Transfer function (wideband)



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