EPCOS

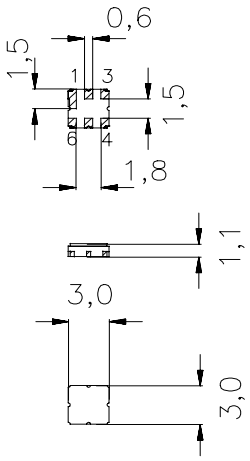
SAW Components

Data Sheet B4139

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**)



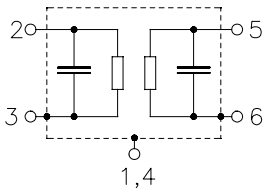
Dimensions in mm, approx. weight 0,037 g

Terminals

- Ni, gold-plated

Pin configuration

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



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

Type	Ordering code	Marking and Package according to	Packing according to
B4139	B39182-B4139-U410	C61157-A7-A67	F61074-V8088-Z000

Maximum ratings

Operable temperature range	T	– 25 / + 75	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω peak power of GSM signal,
1805 ... 1880 MHz	P_{IN}	15	dBm	duty cycle 1 : 8
1710 ... 1785 MHz	P_{IN}	13	dBm	duty cycle 1 : 8
925 ... 960 MHz	P_{IN}	17	dBm	duty cycle 1 : 8
880 ... 915 MHz	P_{IN}	17	dBm	duty cycle 1 : 8
1850 ... 1910 MHz	P_{IN}	10	dBm	continuous wave, 2000h
1930 ... 1990 MHz	P_{IN}	10	dBm	continuous wave, 2000h
elsewhere		0	dBm	continuous wave

Characteristics

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

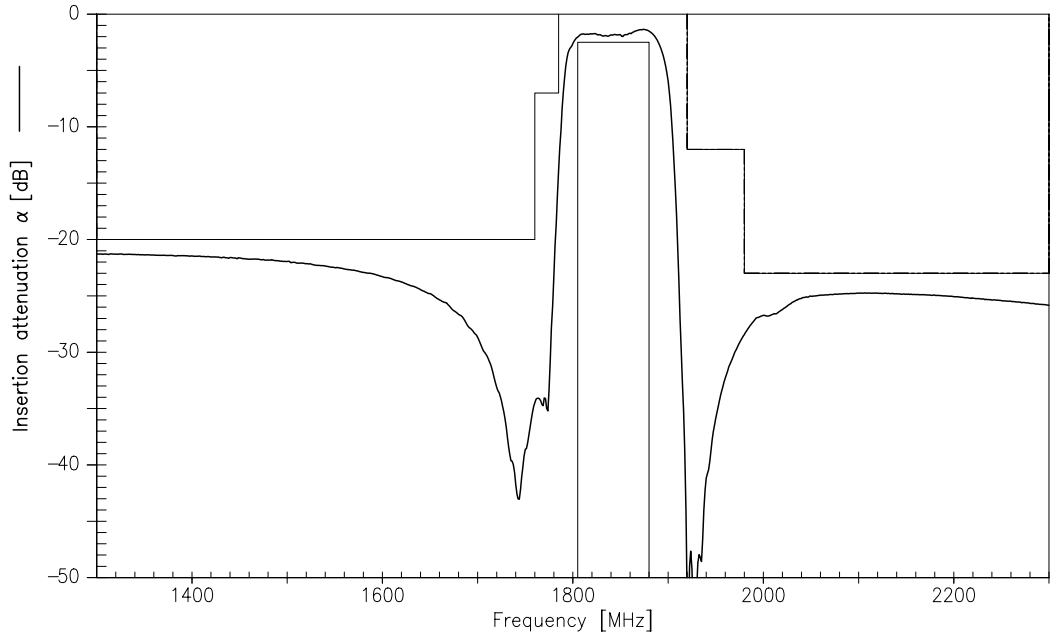
				min.	typ.	max.	
Center frequency			f_c	—	1842,5	—	MHz
Maximum insertion attenuation			α_{max}				
	1805,0	...1810,0 MHz		—	2,2	2,5	dB
	1810,0	...1880,0 MHz		—	2,2	2,5	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1810,0 MHz		—	0,8	1,1	dB
	1810,0	...1880,0 MHz		—	0,8	1,1	dB
Input return loss							
	1805,0	...1880,0 MHz		6,0	6,5	—	dB
Output return loss							
	1805,0	...1880,0 MHz		6,0	6,5	—	dB
Attenuation			α				
	10,0	...1760,0 MHz		20,0	21,5	—	dB
	1760,0	...1785,0 MHz		7,0	12,0	—	dB
	1920,0	...1980,0 MHz		12,0	25,0	—	dB
	1980,0	...3500,0 MHz		23,0	24,5	—	dB
	3500,0	...4000,0 MHz		20,0	27,0	—	dB
	4000,0	...4500,0 MHz		8,0	14,0	—	dB

Characteristics

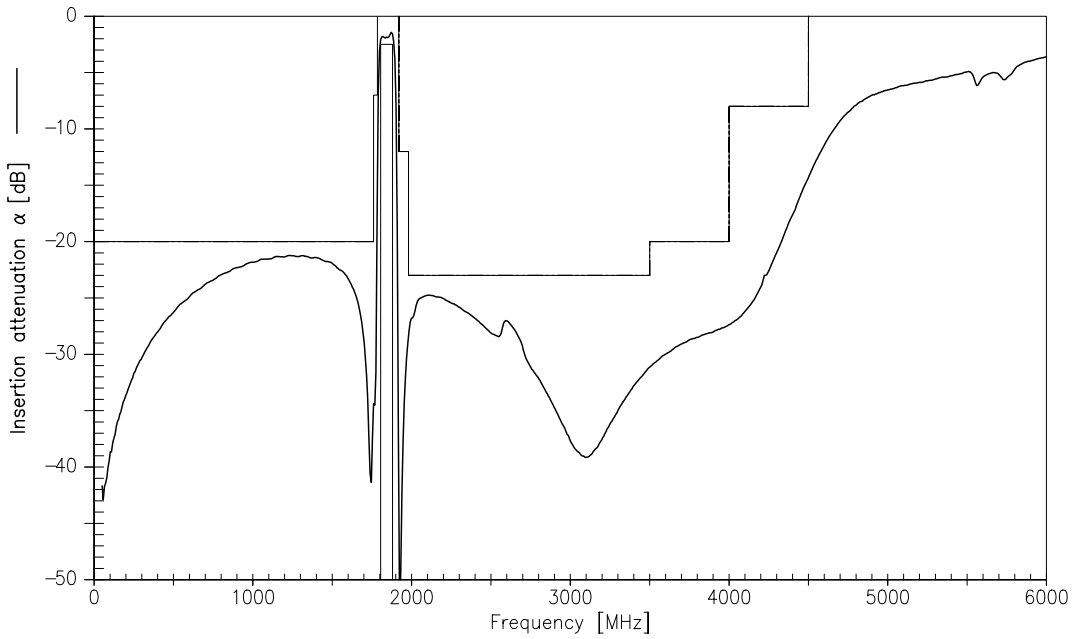
Operating temperature range: T = -25 to +75˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

				min.	typ.	max.	
Center frequency			f_c	—	1842,5	—	MHz
Maximum insertion attenuation			α_{max}				
	1805,0	...1810,0 MHz		—	2,7	3,0	dB
	1810,0	...1880,0 MHz		—	2,2	2,5	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1810,0 MHz		—	1,3	1,6	dB
	1810,0	...1880,0 MHz		—	0,8	1,1	dB
Input return loss							
	1805,0	...1880,0 MHz		6,0	6,5	—	dB
Output return loss							
	1805,0	...1880,0 MHz		6,0	6,5	—	dB
Attenuation			α				
	10,0	...1760,0 MHz		20,0	21,5	—	dB
	1760,0	...1785,0 MHz		5,0	9,0	—	dB
	1920,0	...1980,0 MHz		12,0	20,0	—	dB
	1980,0	...3500,0 MHz		23,0	24,5	—	dB
	3500,0	...4000,0 MHz		20,0	27,0	—	dB
	4000,0	...4500,0 MHz		8,0	14,0	—	dB

Transfer function (spec for 25°C)



Transfer function (wideband)



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