Siemens Matsushita Components

SAW Components
Low Loss Filter for Mobile Communication

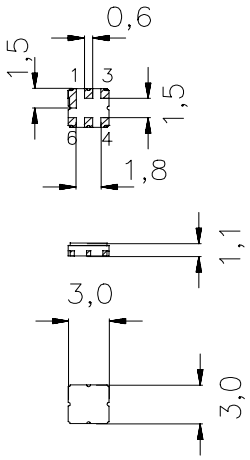
B4144
1842,50 MHz

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



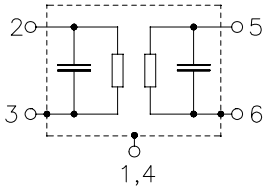
Dimensions in mm, approx. weight 0,037 g

Terminals

- Ni, gold-plated

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4144	B39182-B4144-U410	C61157-A7-A67	F61074-V8088-Z000

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

Maximum ratings

Operable temperature range	T	– 20 / + 80	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω
1710 ... 1785 MHz	P_{IN}	5	dBm	peak power of GSM signal, duty cycle 1 : 8
elsewhere		0	dBm	continuous wave

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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	—	3,0	3,5	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1880,0	MHz	—	1,3	1,8	dB
Input VSWR							
	1805,0	...1880,0	MHz	—	2,5	2,8	
Output VSWR							
	1805,0	...1880,0	MHz	—	2,5	2,8	
Attenuation			α				
	10,0	... 800,0	MHz	20,0	21,0	—	dB
	800,0	...1500,0	MHz	19,0	20,0	—	dB
	1500,0	...1705,0	MHz	20,0	21,0	—	dB
	1705,0	...1760,0	MHz	20,0	25,0	—	dB
	1760,0	...1785,0	MHz	12,0	22,0	—	dB
	1920,0	...1980,0	MHz	20,0	25,0	—	dB
	1980,0	...3120,0	MHz	20,0	22,0	—	dB
	3120,0	...5000,0	MHz	20,0	25,0	—	dB
	5000,0	...6000,0	MHz	10,0	20,0	—	dB

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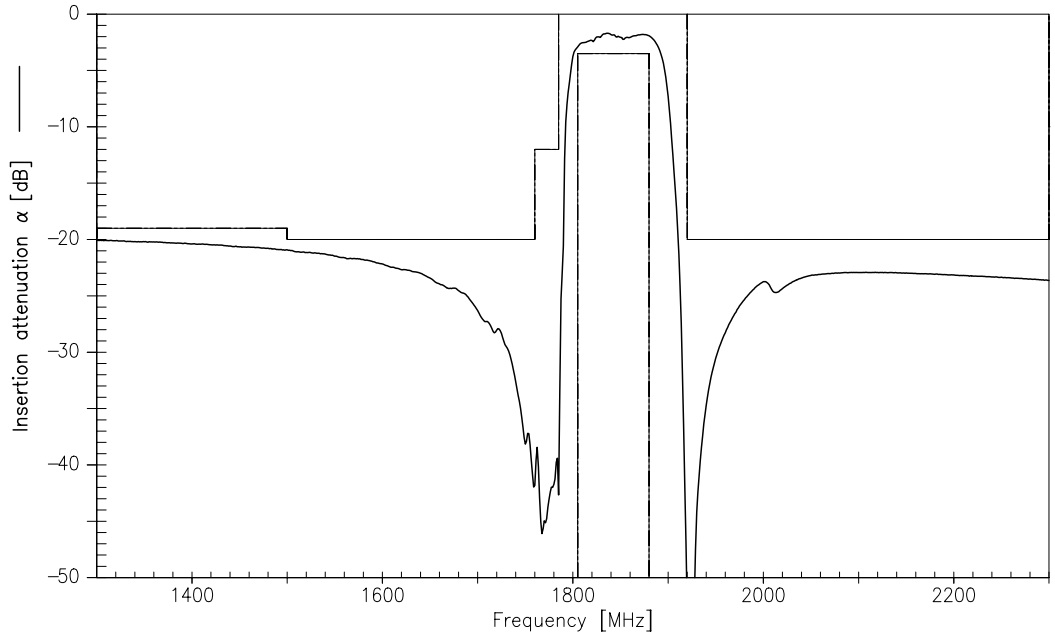
Characteristics

Operating temperature range: T = -20 to +80˚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	—	3,6	3,9	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1880,0	MHz	—	1,9	2,2	dB
Input VSWR							
	1805,0	...1880,0	MHz	—	2,5	2,8	
Output VSWR							
	1805,0	...1880,0	MHz	—	2,5	2,8	
Attenuation			α				
	10,0	... 800,0	MHz	20,0	21,0	—	dB
	800,0	...1500,0	MHz	19,0	20,0	—	dB
	1500,0	...1705,0	MHz	20,0	21,0	—	dB
	1705,0	...1760,0	MHz	20,0	25,0	—	dB
	1760,0	...1785,0	MHz	8,0	16,0	—	dB
	1920,0	...1980,0	MHz	20,0	25,0	—	dB
	1980,0	...3120,0	MHz	20,0	22,0	—	dB
	3120,0	...5000,0	MHz	20,0	25,0	—	dB
	5000,0	...6000,0	MHz	10,0	20,0	—	dB

Data Sheet

Transfer function (spec for 25°C)



Transfer function (wideband)