



Siemens Matsushita Components

## SAW Components

### Low Loss Filter for Mobile Communication

B4144  
1842,50 MHz

#### Data Sheet

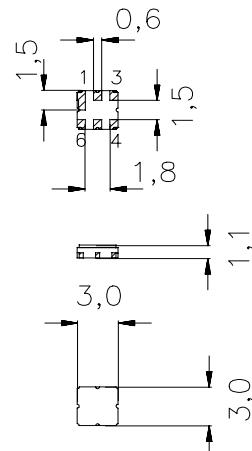
Ceramic package DCC6C

#### 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  $50\ \Omega$
- Ceramic Package for **Surface Mounted Technology (SMT)**

#### Terminals

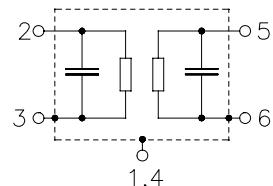
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

#### 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 Sensitive Device (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 $50\ \Omega$
1710 ... 1785 MHz	$P_{IN}$	5	dBm	peak power of GSM signal, duty cycle 1 : 8
elsewhere		0	dBm	continuous wave

Preliminary format of data sheet.

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Aug 25, 1999



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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.	
<b>Center frequency</b>		$f_c$	—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>		$\alpha_{\max}$	—	3,0	3,5	dB
	1805,0 ... 1880,0	MHz	—	3,0	3,5	dB
<b>Amplitude ripple (p-p)</b>		$\Delta\alpha$	—	1,3	1,8	dB
	1805,0 ... 1880,0	MHz	—	1,3	1,8	dB
<b>Input VSWR</b>			—	2,5	2,8	
	1805,0 ... 1880,0	MHz	—	2,5	2,8	
<b>Output VSWR</b>			—	2,5	2,8	
	1805,0 ... 1880,0	MHz	—	2,5	2,8	
<b>Attenuation</b>		$\alpha$	—	—	—	
	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  $+80^\circ\text{C}$   
Terminating source impedance:  $Z_S = 50 \Omega$   
Terminating load impedance:  $Z_L = 50 \Omega$

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



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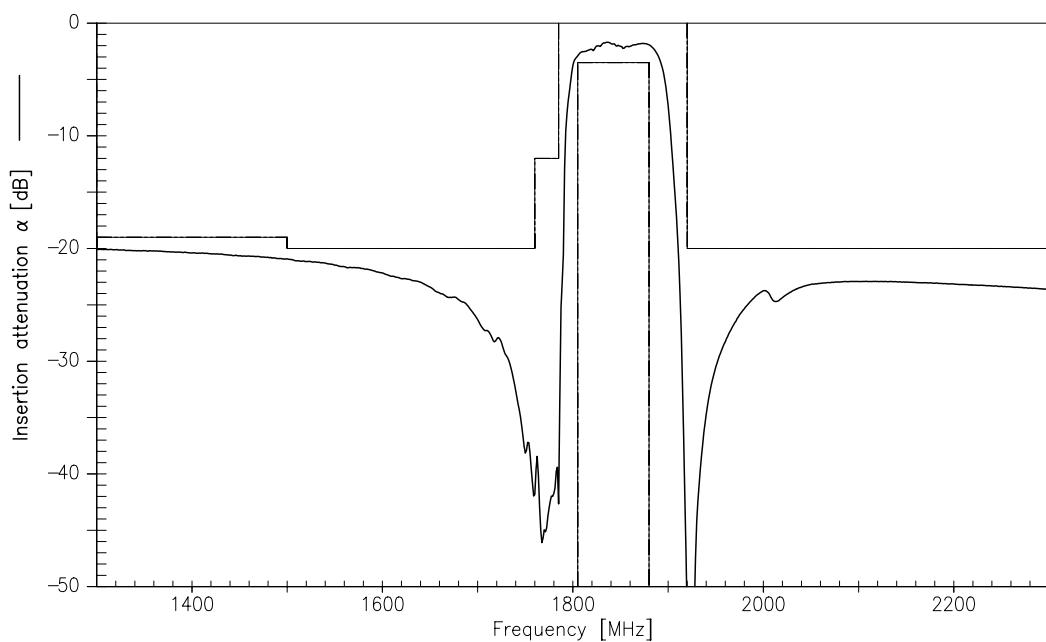
### Low Loss Filter for Mobile Communication

B4144

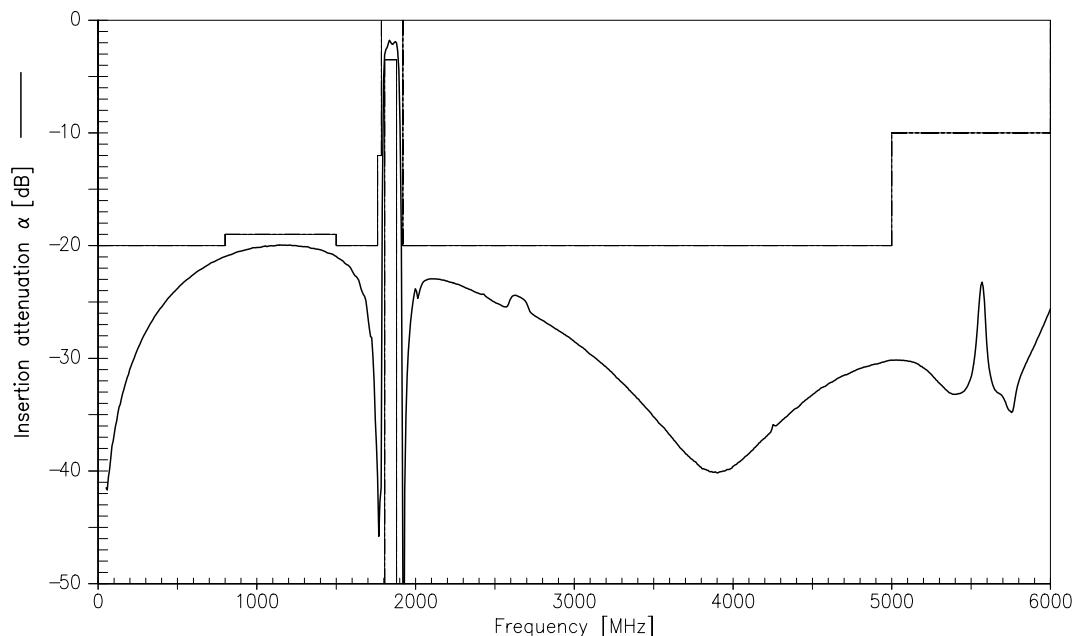
1842,50 MHz

#### Data Sheet

##### Transfer function (spec for 25°C)



##### Transfer function (wideband)



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