

SAW Components

Low Loss Filter for Mobile Communication

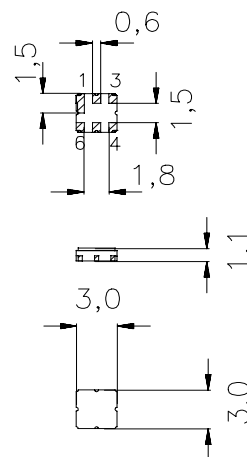
B4144
1842,50 MHz

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 **Surface Mounted Technology (SMT)**



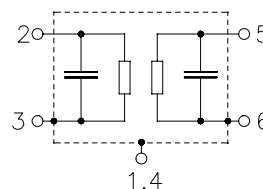
Terminals

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



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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	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 $+80^{\circ}\text{C}$
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}					
	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



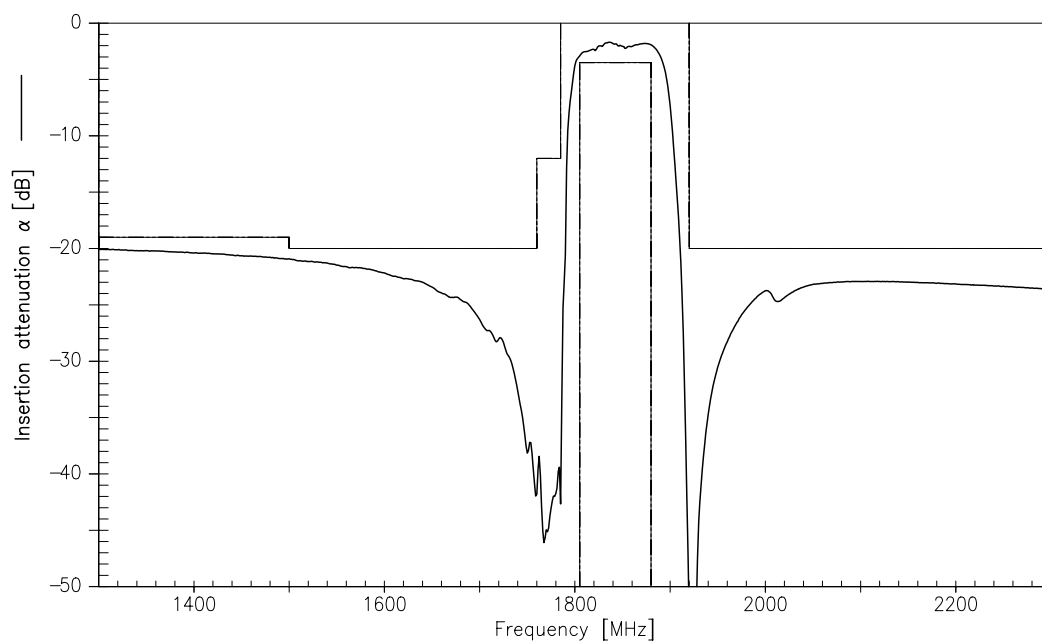
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Transfer function (spec for 25°C)



Transfer function (wideband)

