



Siemens Matsushita Components

SAW Components

Low Loss Filter for Mobile Communication

B4104
942,50 MHz

Data Sheet

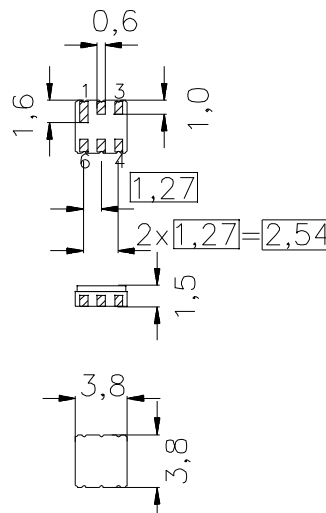
Features

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

- Ni, gold-plated

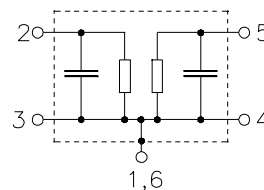
Ceramic package **DCC6**



Dimensions in mm, approx. weight 0,07 g

Pin configuration

2	Input
3	Input - ground
5	Output
4	Output - ground
1,6	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B4104	B39941-B4104-Z610	C61157-A7-A41	F61074-V8030-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 80	$^{\circ}\text{C}$	source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8 continuous wave
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Input power max. 880...915 MHz	P_{IN}	10	dBm	
elsewhere		5	dBm	



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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	—	942,50	—	MHz
Maximum insertion attenuation	α_{\max}				
925,0 ... 960,0 MHz		—	2,3	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,0	1,8	dB
Input Return Loss					
925,0 ... 960,0 MHz		10,0	11,0	—	dB
Output Return Loss					
925,0 ... 960,0 MHz		9,0	10,0	—	dB
Attenuation	α				
0,0 ... 880,0 MHz		15,0	18,0	—	dB
880,0 ... 905,0 MHz		20,0	25,0	—	dB
905,0 ... 915,0 MHz		20,0	25,0	—	dB
980,0 ... 1000,0 MHz		20,0	27,0	—	dB
1000,0 ... 1300,0 MHz		19,0	21,0	—	dB
1300,0 ... 1475,0 MHz		22,0	24,0	—	dB
1475,0 ... 1597,0 MHz		26,0	29,0	—	dB
1597,0 ... 1710,0 MHz		30,0	32,0	—	dB
1710,0 ... 2500,0 MHz		13,0	17,0	—	dB
2500,0 ... 3000,0 MHz		5,0	12,0	—	dB



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Operating temperature range: $T = +10$ to $+60^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	942,50	—	MHz
Maximum insertion attenuation	α_{\max}					
	925,0 ... 960,0 MHz		—	2,4	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	925,0 ... 960,0 MHz		—	1,1	2,1	dB
Input Return Loss						
	925,0 ... 960,0 MHz		10,0	11,0	—	dB
Output Return Loss						
	925,0 ... 960,0 MHz		9,0	10,0	—	dB
Attenuation	α					
	0,0 ... 880,0 MHz		15,0	18,0	—	dB
	880,0 ... 905,0 MHz		20,0	25,0	—	dB
	905,0 ... 915,0 MHz		13,0	24,0	—	dB
	980,0 ... 1000,0 MHz		20,0	27,0	—	dB
	1000,0 ... 1300,0 MHz		19,0	21,0	—	dB
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	2500,0 ... 3000,0 MHz		5,0	12,0	—	dB



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Operating temperature range: $T = -10$ 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	—	942,50	—	MHz
Maximum insertion attenuation	α_{\max}				
925,0 ... 960,0 MHz		—	2,5	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,2	2,3	dB
Input Return Loss					
925,0 ... 960,0 MHz		10,0	11,0	—	dB
Output Return Loss					
925,0 ... 960,0 MHz		9,0	10,0	—	dB
Attenuation	α				
0,0 ... 880,0 MHz		15,0	18,0	—	dB
880,0 ... 905,0 MHz		20,0	25,0	—	dB
905,0 ... 915,0 MHz		12,0	22,0	—	dB
980,0 ... 1000,0 MHz		20,0	27,0	—	dB
1000,0 ... 1300,0 MHz		19,0	21,0	—	dB
1300,0 ... 1475,0 MHz		22,0	24,0	—	dB
1475,0 ... 1597,0 MHz		26,0	29,0	—	dB
1597,0 ... 1710,0 MHz		30,0	32,0	—	dB
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Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	942,50	—	MHz
Maximum insertion attenuation	α_{\max}				
925,0 ... 960,0 MHz		—	2,7	3,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,4	2,5	dB
Input Return Loss					
925,0 ... 960,0 MHz		10,0	11,0	—	dB
Output Return Loss					
925,0 ... 960,0 MHz		9,0	10,0	—	dB
Attenuation	α				
0,0 ... 880,0 MHz		15,0	18,0	—	dB
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905,0 ... 915,0 MHz		9,0	20,0	—	dB
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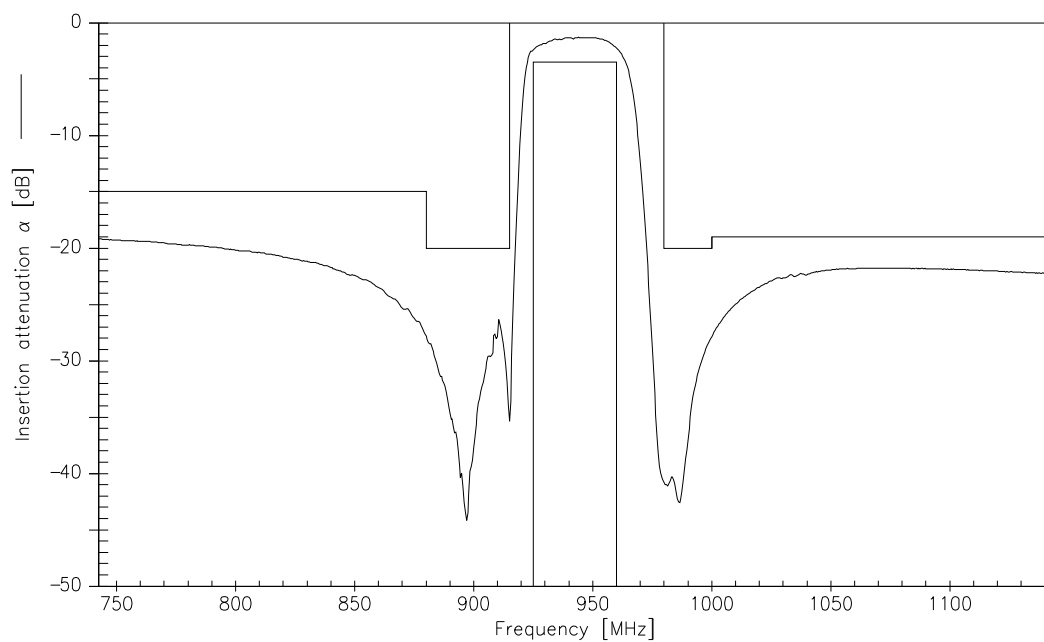
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Transfer function (spec for 25°C)



Transfer function (wideband)

