



# SAW Components

Data Sheet B4135





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Low-Loss Filter for Mobile Communication

1960,00 MHz

Data Sheet



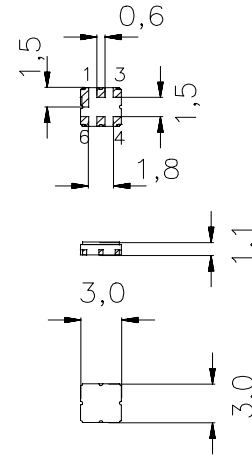
Ceramic package DCC6C

**Features**

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- No matching network required for operation at 50 Ω
- Package for **Surface Mounted Technology (SMT)**

**Terminals**

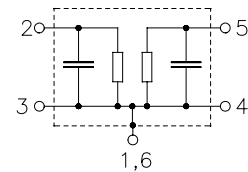
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

**Pin configuration**

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



Type	Ordering code	Marking and Package according to	Packing according to
B4135	B39202-B4135-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 40/+ 85	°C	Contact discharge, $R_s=0\ \Omega$ , $C_s=200\ \text{pF}$ source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8 CDMA signal
Storage temperature range	$T_{\text{stg}}$	- 40/+ 85	°C	
DC voltage	$V_{\text{DC}}$	0	V	
ESD	$V_{\text{DC}}$	50	V	
Input power max.	$P_{\text{IN}}$	5	dBm	
		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.	
<b>Center frequency</b>	$f_c$		—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
		1930,0 ... 1990,0 MHz	—	3,1	3,7	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		1930,0 ... 1990,0 MHz	—	1,1	1,7	dB
<b>Input VSWR</b>						
		1930,0 ... 1990,0 MHz	—	2,1	2,4	
<b>Output VSWR</b>						
		1930,0 ... 1990,0 MHz	—	2,1	2,4	
<b>Attenuation</b>	$\alpha$					
		10,0 ... 1850,0 MHz	20,0	22,0	—	dB
		1850,0 ... 1910,0 MHz	17,5	28,0	—	dB
		2010,0 ... 2040,0 MHz	5,0	10,0	—	dB
		2040,0 ... 2070,0 MHz	20,0	30,0	—	dB
		2070,0 ... 5000,0 MHz	22,0	27,0	—	dB
		5000,0 ... 6000,0 MHz	10,0	18,0	—	dB



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Characteristics

Operating temperature range:  $T = -30$  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>	$f_c$		—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$					
		1930,0 ... 1990,0 MHz	—	3,3	4,1	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		1930,0 ... 1990,0 MHz	—	1,3	2,1	dB
<b>Input VSWR</b>						
		1930,0 ... 1990,0 MHz	—	2,1	2,4	
<b>Output VSWR</b>						
		1930,0 ... 1990,0 MHz	—	2,1	2,4	
<b>Attenuation</b>	$\alpha$					
		10,0 ... 1850,0 MHz	20,0	22,0	—	dB
		1850,0 ... 1910,0 MHz	11,5	15,0	—	dB
		2010,0 ... 2040,0 MHz	4,5	10,0	—	dB
		2040,0 ... 2070,0 MHz	20,0	30,0	—	dB
		2070,0 ... 5000,0 MHz	22,0	27,0	—	dB
		5000,0 ... 6000,0 MHz	10,0	18,0	—	dB



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**Characteristics**

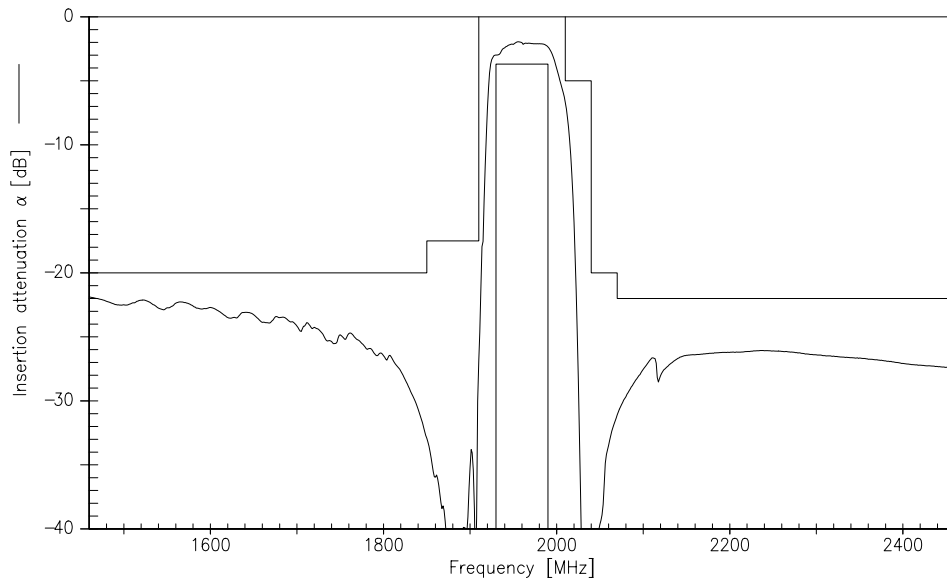
Operating temperature range:  $T = -30$  to  $+85^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

				min.	typ.	max.	
<b>Center frequency</b>	$f_c$			—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$			—	3,3	4,0	
		1930,6 ... 1989,4	MHz				dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$			—	1,3	2,1	
		1930,6 ... 1989,4	MHz				dB
<b>Input VSWR</b>				—	2,1	2,4	
		1930,6 ... 1989,4	MHz				
<b>Output VSWR</b>				—	2,1	2,4	
		1930,6 ... 1989,4	MHz				
<b>Attenuation</b>	$\alpha$						
		10,0 ... 1850,6	MHz	20,0	22,0	—	dB
		1850,6 ... 1909,4	MHz	13,0 <sup>1)</sup>	15,0	—	dB
		2010,0 ... 2040,0	MHz	4,5	10,0	—	dB
		2040,0 ... 2070,0	MHz	20,0	30,0	—	dB
		2070,0 ... 5000,0	MHz	22,0	27,0	—	dB
		5000,0 ... 6000,0	MHz	10,0	18,0	—	dB

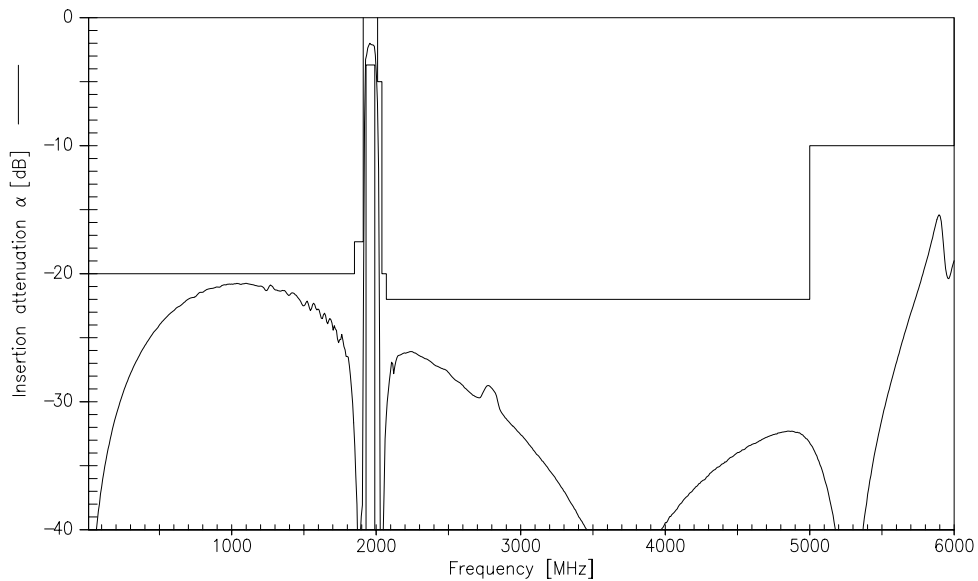
1) For -30 to +65 degree C, the minimum rejection is 15.0 dB  
 For -30 to +25 degree C, the minimum rejection is 19.0 dB



Transfer Function(25° C spec)

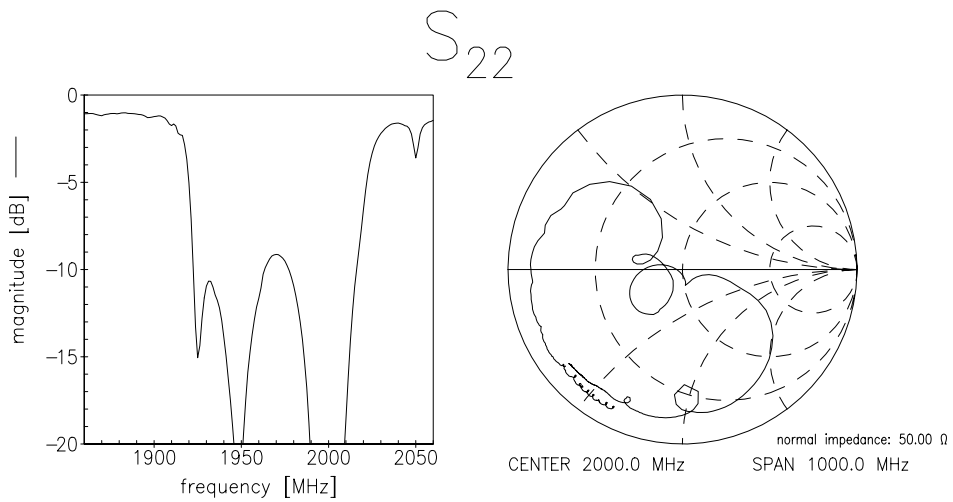
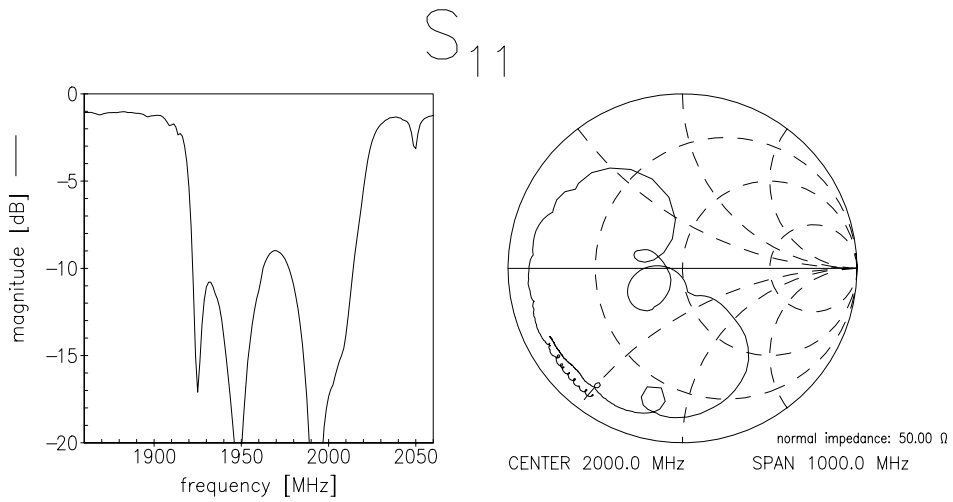


Transfer function (wideband)





Reflection functions





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