



RF Filters for Cellular Phones

Series/Type: B4168

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39202B4168U410	B39202B4150U410	2009-04-03	2009-07-15	2009-10-15

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SAW Components

B4168

Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



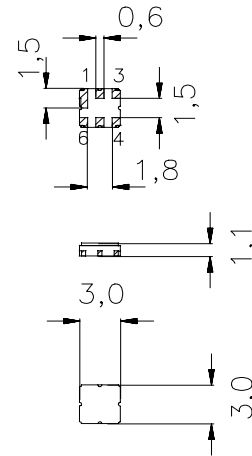
Ceramic package **DCC6C**

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
- Suitable for GPRS class 1 to 12
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

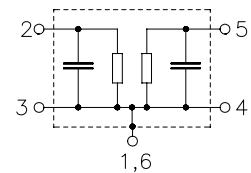
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4168	B39202-B4168-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30/+ 75	°C	peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	3	V	
Input power at GSM850, GSM900	P_{IN}	15	dBm	
GSM1800, GSM1900	P_{IN}	12	dBm	
Tx bands				



Data Sheet



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		—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}		—	2,7	3,5	dB
		1930,0 ... 1990,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,4	2,2	dB
		1930,0 ... 1990,0 MHz				
Input VSWR			—	1,9	2,1	
		1930,0 ... 1990,0 MHz				
Output VSWR			—	1,9	2,1	
		1930,0 ... 1990,0 MHz				
Attenuation	α					
		10,0 ... 1850,0 MHz	23,0	25,0	—	dB
		1850,0 ... 1910,0 MHz	10,5	14,0	—	dB
		2010,0 ... 2070,0 MHz	10,5	15,0	—	dB
		2070,0 ... 2410,0 MHz	25,0	29,0	—	dB
		2410,0 ... 2910,0 MHz	33,0	37,0	—	dB
		2910,0 ... 4500,0 MHz	25,0	29,0	—	dB
		4500,0 ... 5000,0 MHz	20,0	26,0	—	dB
		5000,0 ... 6000,0 MHz	8,0	10,0	—	dB



Data Sheet



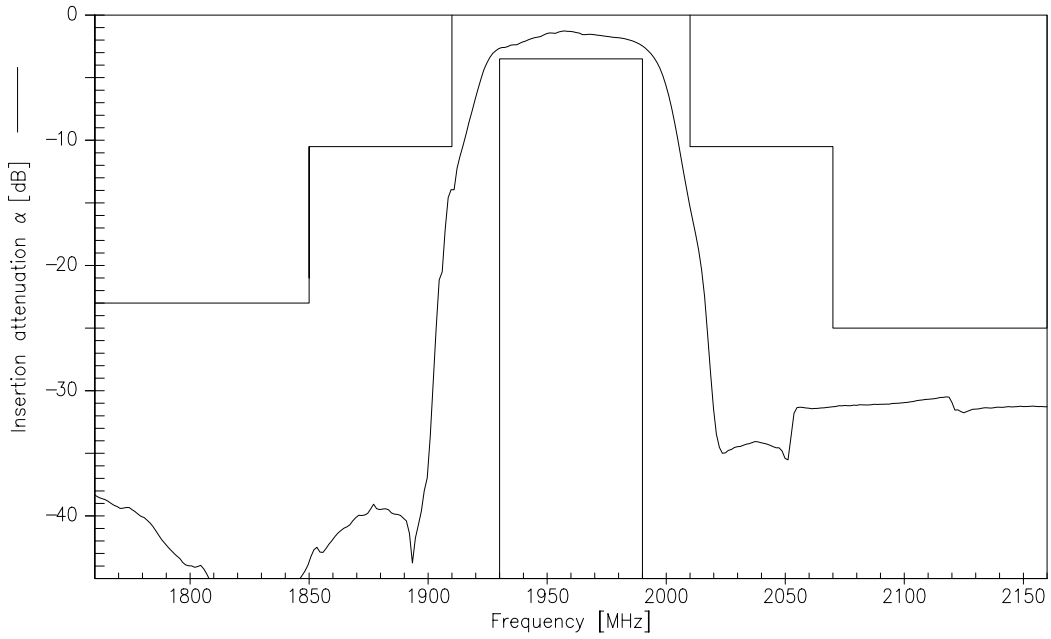
Characteristics

Operating temperature range: $T = -10$ to $+75^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

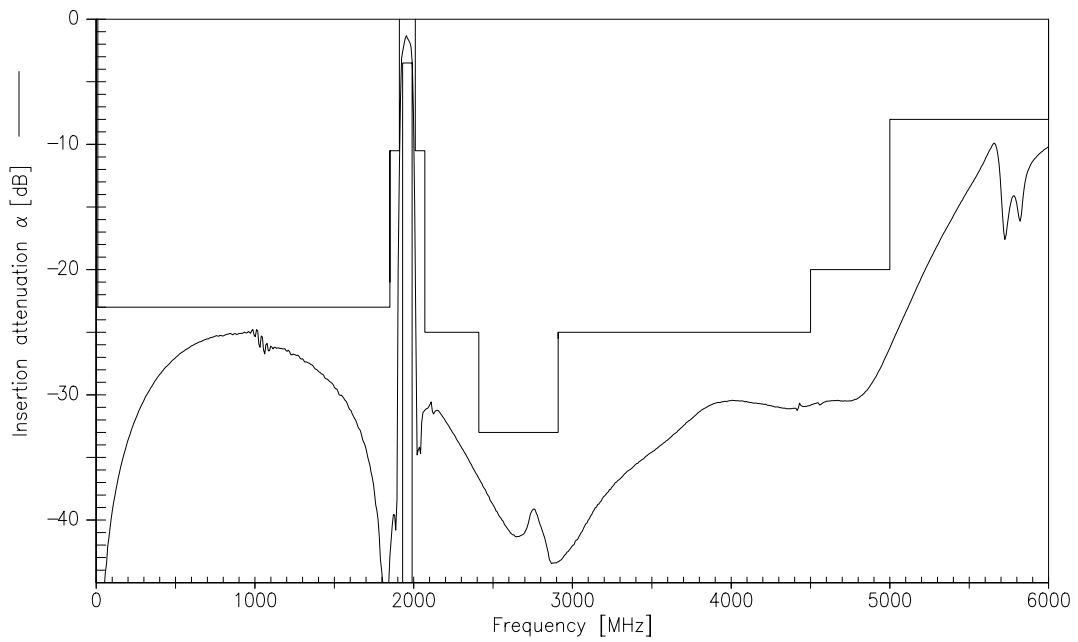
			min.	typ.	max.	
Center frequency	f_c		—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}		—	2,7	4,3	dB
		1930,0 ... 1990,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,4	3,0	dB
		1930,0 ... 1990,0 MHz				
Input VSWR			—	1,9	2,1	
		1930,0 ... 1990,0 MHz				
Output VSWR			—	1,9	2,1	
		1930,0 ... 1990,0 MHz				
Attenuation	α					
		10,0 ... 1850,0 MHz	23,0	25,0	—	dB
		1850,0 ... 1910,0 MHz	8,5	14,0	—	dB
		2010,0 ... 2070,0 MHz	8,5	15,0	—	dB
		2070,0 ... 2410,0 MHz	25,0	29,0	—	dB
		2410,0 ... 2910,0 MHz	33,0	37,0	—	dB
		2910,0 ... 4500,0 MHz	25,0	29,0	—	dB
		4500,0 ... 5000,0 MHz	20,0	26,0	—	dB
		5000,0 ... 6000,0 MHz	8,0	10,0	—	dB



Transfer function(Spec for 25°C):



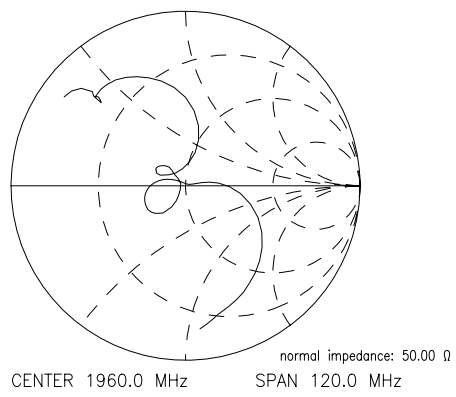
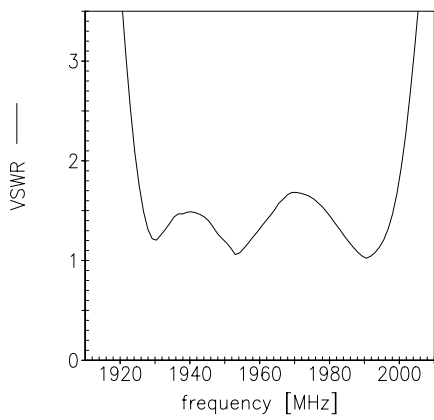
Transfer function(wideband):



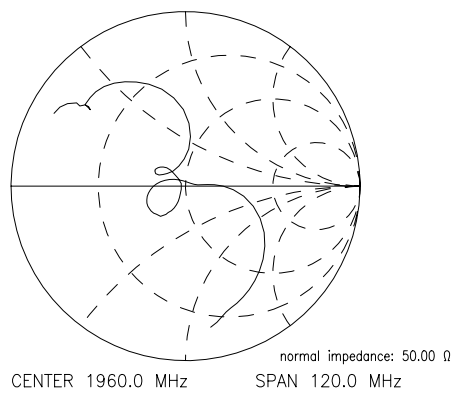
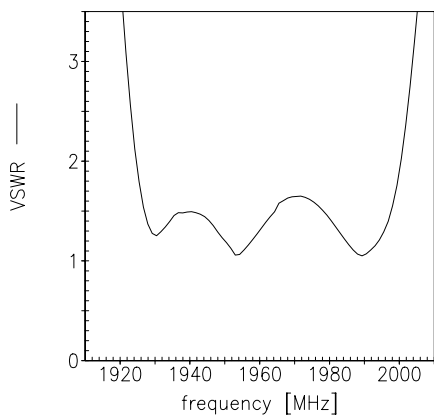


Reflection functions:

S_{11}



S_{22}





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1960,0 MHz

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Surface Acoustic Wave Components Division, SAW MC WT

P.O. Box 80 17 09, 81617 Munich, GERMANY

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