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The following products presented in this data sheet are being withdrawn.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

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Data Sheet

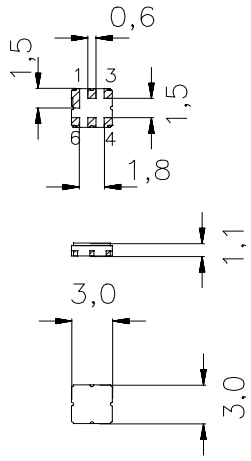
Ceramic package **DCC6C**

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 **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

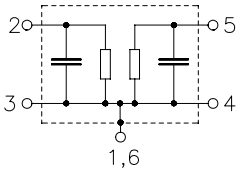
- Ni, gold-plated



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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

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

Data Sheet SMD

Characteristics

Operating temperature range: T = +25 +- 2°C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

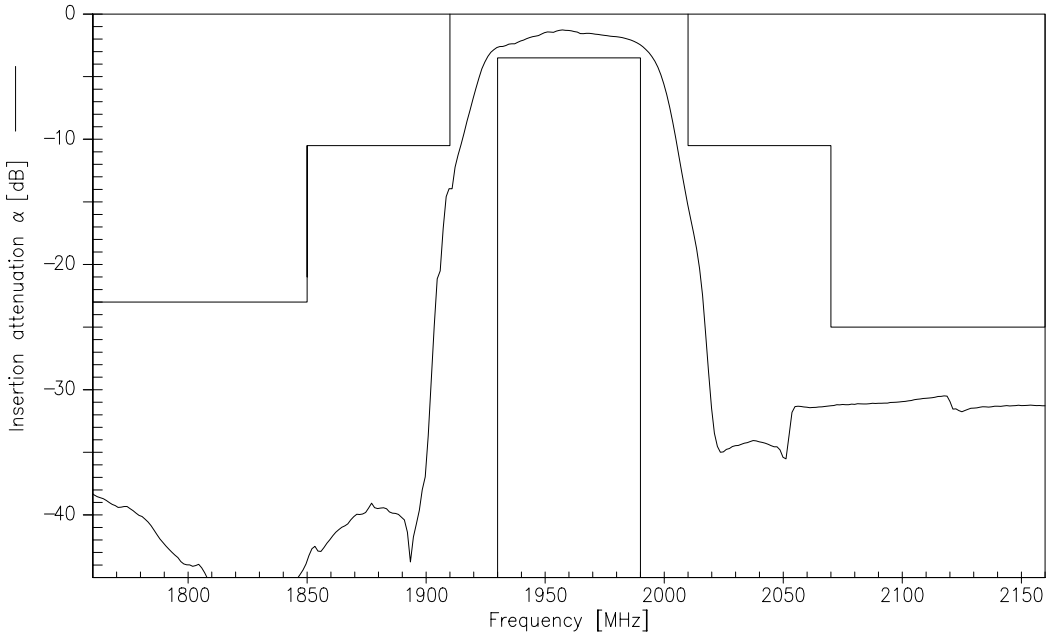
		min.	typ.	max.	
Center frequency	f_c	—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}				
1930,0 ...1990,0 MHz		—	2,7	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1930,0 ...1990,0 MHz		—	1,4	2,2	dB
Input VSWR					
1930,0 ...1990,0 MHz		—	1,9	2,1	
Output VSWR					
1930,0 ...1990,0 MHz		—	1,9	2,1	
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

Characteristics

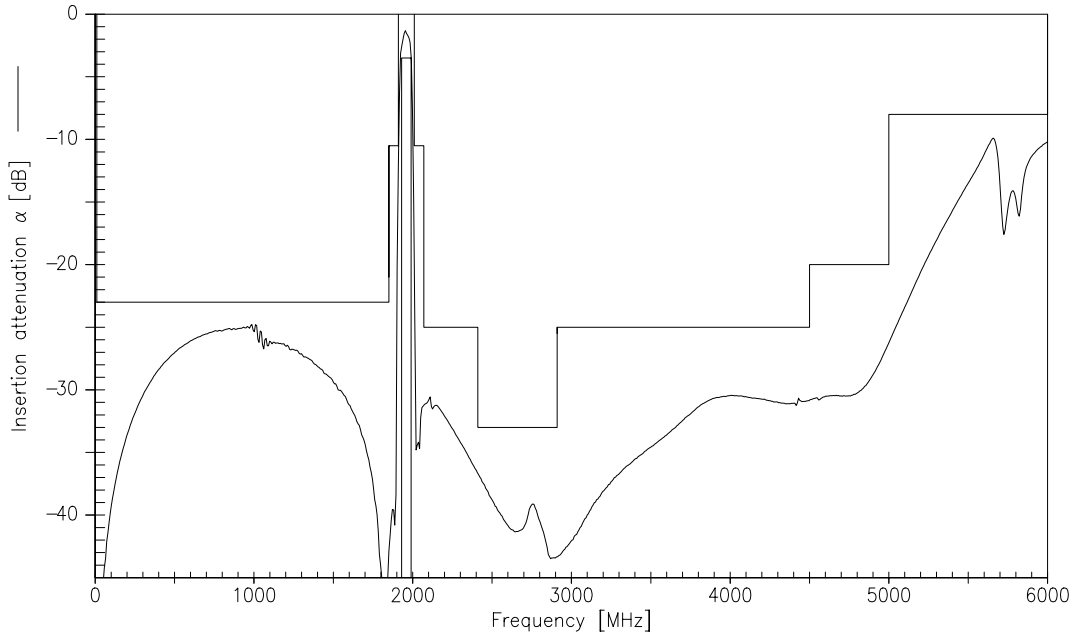
Operating temperature range: T = -10 to +75°C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_c	—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}				
1930,0 ...1990,0 MHz		—	2,7	4,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1930,0 ...1990,0 MHz		—	1,4	3,0	dB
Input VSWR					
1930,0 ...1990,0 MHz		—	1,9	2,1	
Output VSWR					
1930,0 ...1990,0 MHz		—	1,9	2,1	
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)**:**

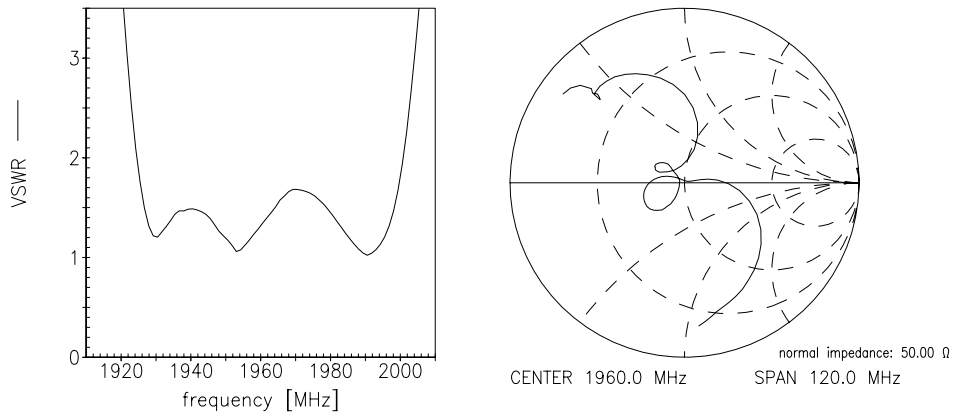


Transfer function(wideband)**:**

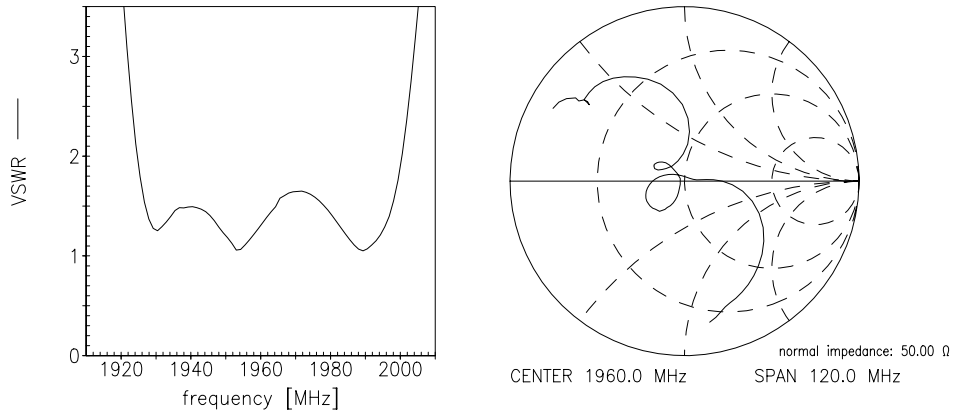


Reflection functions:

S_{11}



S_{22}



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