



SAW Components

Data Sheet B9008





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B9008

Low-Loss Filter for Mobile Communication

1960,0 MHz

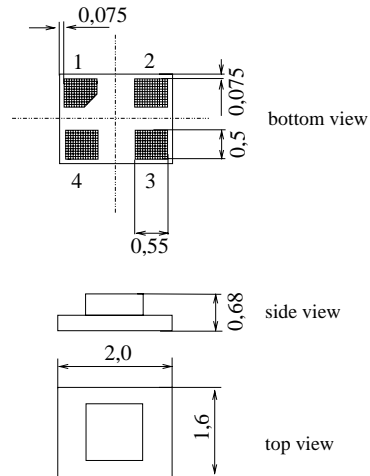
Data Sheet



Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- No matching network required for operation at 50 Ohms
- Suitable for GPRS class 1 to 12
- Ceramic package for **Surface Mounted Technology (SMT)**

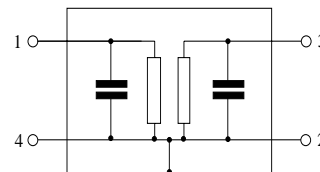
Chip sized SAW package DCS4F



Dimensions in mm, approx. weight 0.006g

Pin configuration

- 1 Input
- 3 Output
- 2,4 Ground



Type	Ordering code	Marking and Package according to	Packing according to
B9008	B39202-B9008-E610	C61157-A7-A113	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operating temperature range	T	- 30/+ 85	°C	machine model human body model peak power of GSM signal, duty cycle 4:8 duty cycle 4:8 duty cycle 3:8
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50	V	
ESD voltage	V_{ESD}	250	V	
Input Power at GSM850, GSM900	P_{IN}	15	dBm	
GSM1800, GSM1900		12	dBm	
GSM1800, GSM1900 Tx bands		15	dBm	



Data Sheet



Characteristics

Operating temperature range: $T = +25^{\circ}\text{C}$
 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}	—	2,0	2,3	dB
1930,0 ... 1990,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,7	1,1	dB
1930,0 ... 1990,0	MHz				
Input VSWR		—	1,8	2,1	dB
1930,0 ... 1990,0	MHz				
Output VSWR		—	1,7	2,0	dB
1930,0 ... 1990,0	MHz				
Attenuation	α				
0,0 ... 1493,0	MHz	32	34	—	dB
1493,0 ... 1830,0	MHz	30	35	—	dB
1830,0 ... 1850,0	MHz	27	35	—	dB
1850,0 ... 1910,0	MHz	14	17	—	dB
2010,0 ... 2070,0	MHz	14	16	—	dB
2070,0 ... 2412,0	MHz	24	27	—	dB
2412,0 ... 2488,0	MHz	31	38	—	dB
2488,0 ... 6000,0	MHz	24	32	—	dB
6000,0 ... 10000,0	MHz	12	16	—	dB
10000,0 ... 12750,0	MHz	3	7	—	dB



Data Sheet



Characteristics

Operating temperature range: $T = -20$ to $+75$ °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}					
		1930,0 ... 1990,0 MHz	—	2,2	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
		1930,0 ... 1990,0 MHz	—	0,8	1,8	dB
Input VSWR						
		1930,0 ... 1990,0 MHz	—	1,8	2,1	dB
Output VSWR						
		1930,0 ... 1990,0 MHz	—	1,7	2,0	dB
Attenuation	α					
		0,0 ... 1493,0 MHz	32	34	—	dB
		1493,0 ... 1830,0 MHz	30	35	—	dB
		1830,0 ... 1850,0 MHz	27	35	—	dB
		1850,0 ... 1910,0 MHz	12	17	—	dB
		2010,0 ... 2070,0 MHz	10	16	—	dB
		2070,0 ... 2412,0 MHz	24	27	—	dB
		2412,0 ... 2488,0 MHz	31	38	—	dB
		2488,0 ... 6000,0 MHz	24	32	—	dB
		6000,0 ... 10000,0 MHz	12	16	—	dB
		10000,0 ... 12750,0 MHz	3	7	—	dB



Data Sheet



Characteristics

Operating temperature range: $T = -10$ to $+80$ °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}	—	2,1	3,0	dB
1930,0 ... 1990,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,8	1,8	dB
1930,0 ... 1990,0	MHz				
Input VSWR		—	1,8	2,1	dB
1930,0 ... 1990,0	MHz				
Output VSWR		—	1,7	2,0	dB
1930,0 ... 1990,0	MHz				
Attenuation	α				
0,0 ... 1493,0	MHz	32	34	—	dB
1493,0 ... 1830,0	MHz	30	35	—	
1830,0 ... 1850,0	MHz	27	35	—	dB
1850,0 ... 1910,0	MHz	12	17	—	
2010,0 ... 2070,0	MHz	12	16	—	dB
2070,0 ... 2412,0	MHz	24	27	—	
2412,0 ... 2488,0	MHz	31	38	—	dB
2488,0 ... 6000,0	MHz	24	32	—	
6000,0 ... 10000,0	MHz	12	16	—	dB
10000,0 ... 12750,0	MHz	3	7	—	



Data Sheet



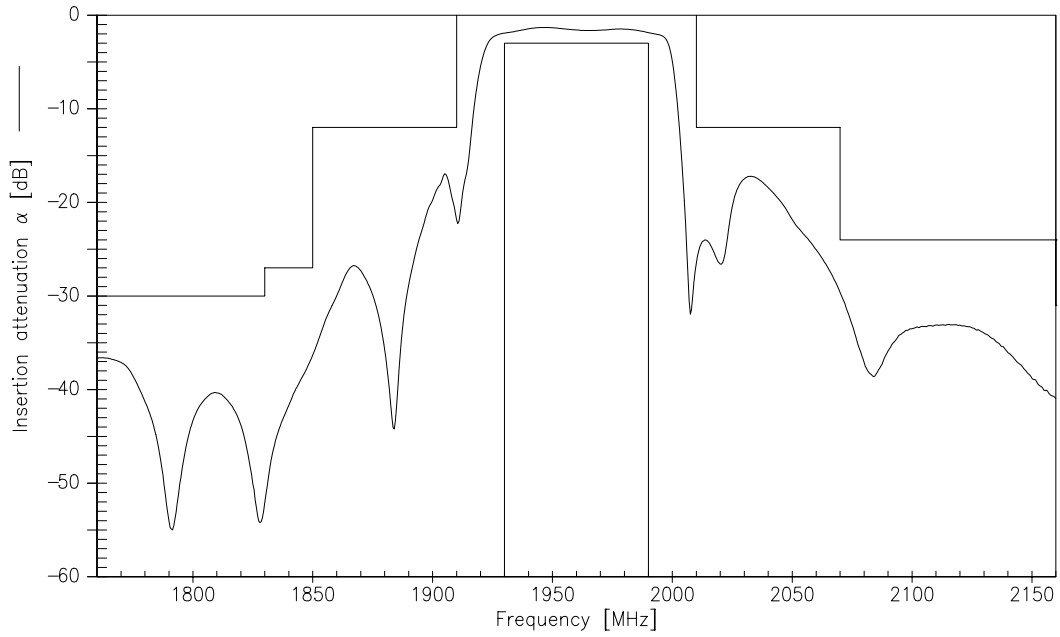
Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

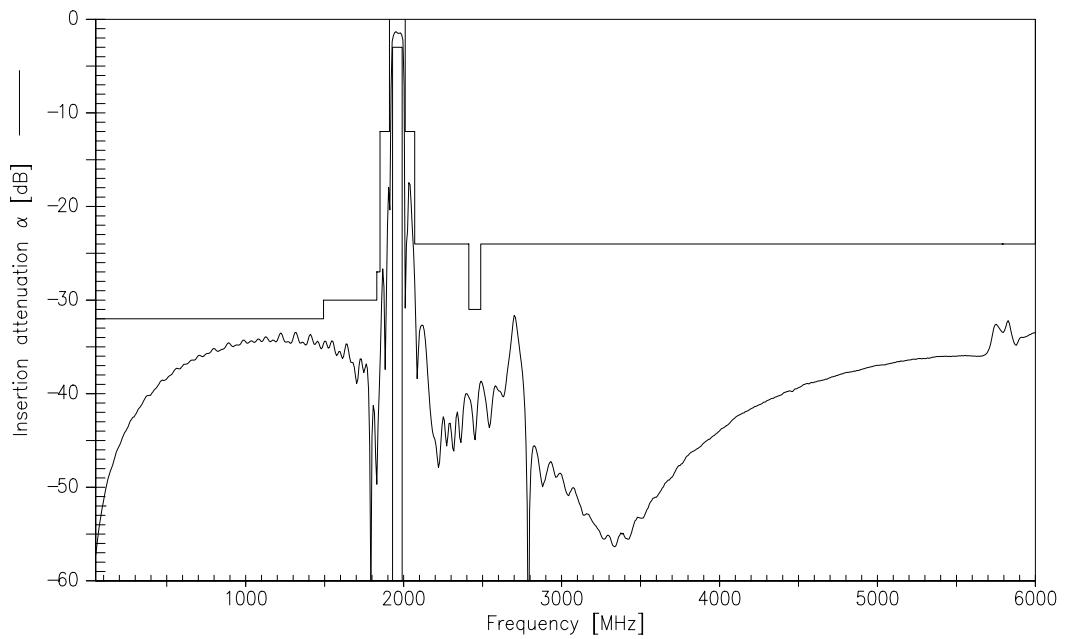
		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,4	3,5	dB
1930,0 ... 1990,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,9	2,3	dB
1930,0 ... 1990,0	MHz				
Input VSWR		—	1,8	2,1	dB
1930,0 ... 1990,0	MHz				
Output VSWR		—	1,7	2,0	dB
1930,0 ... 1990,0	MHz				
Attenuation	α				
0,0 ... 1493,0	MHz	32	34	—	dB
1493,0 ... 1830,0	MHz	30	35	—	
1830,0 ... 1850,0	MHz	27	35	—	dB
1850,0 ... 1910,0	MHz	11	17	—	
2010,0 ... 2070,0	MHz	9	16	—	dB
2070,0 ... 2412,0	MHz	24	27	—	
2412,0 ... 2488,0	MHz	31	38	—	dB
2488,0 ... 6000,0	MHz	24	32	—	
6000,0 ... 10000,0	MHz	12	16	—	dB
10000,0 ... 12750,0	MHz	3	7	—	



Transfer function



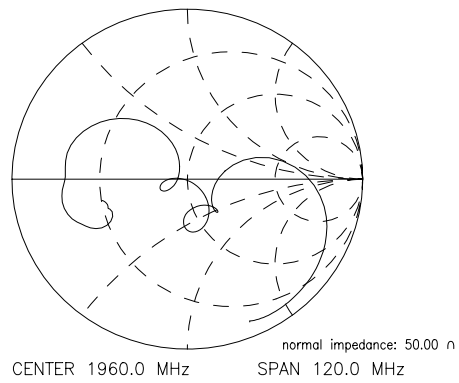
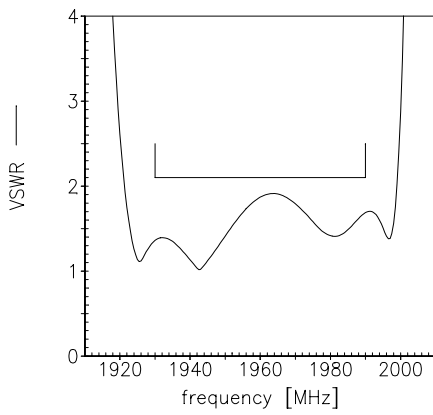
Transfer function (wide band)



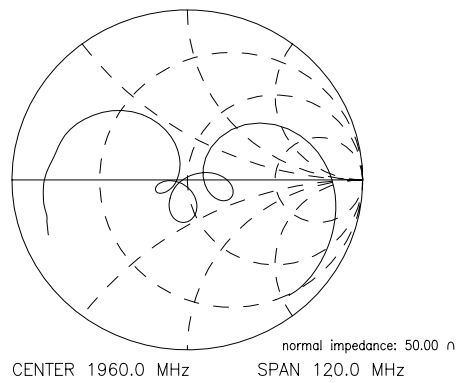
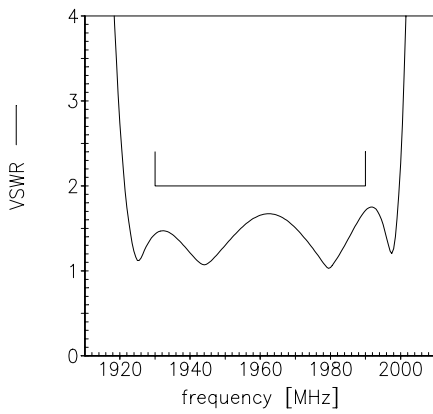


Reflection functions

S11



S22





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