EPCOS

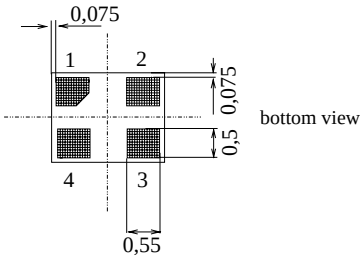
SAW Components

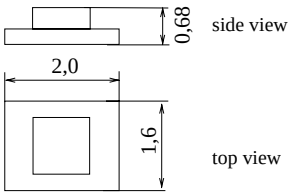
Data Sheet B9008

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

Chip sized SAW package DCS4F





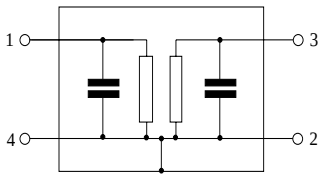
Dimensions in mm, approx. weight 0.006g

Terminals

- Ni, gold-plated

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

Maximum ratings

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

Characteristics

Operating temperature range: T = +25˚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		—	2,0	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1930,0 ...1990,0	MHz		—	0,7	1,1	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		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

Characteristics

Operating temperature range: T = -20 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		—	2,2	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

Characteristics

Operating temperature range: T = -10 to +80 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

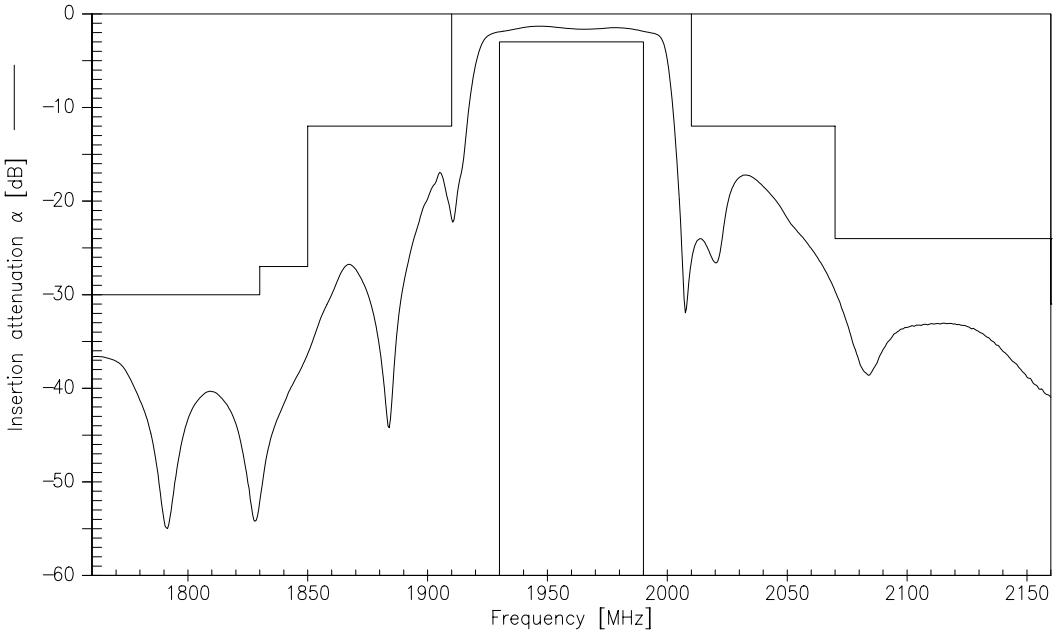
			min.	typ.	max.	
Center frequency	f_C		—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}					
1930,0 ...1990,0	MHz		—	2,1	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1930,0 ...1990,0	MHz		—	0,8	1,8	dB
Input VSWR						
1930,0 ...1990,0	MHz		—	1,8	2,1	dB
Output VSWR						
1930,0 ...1990,0	MHz		—	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		12	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

Characteristics

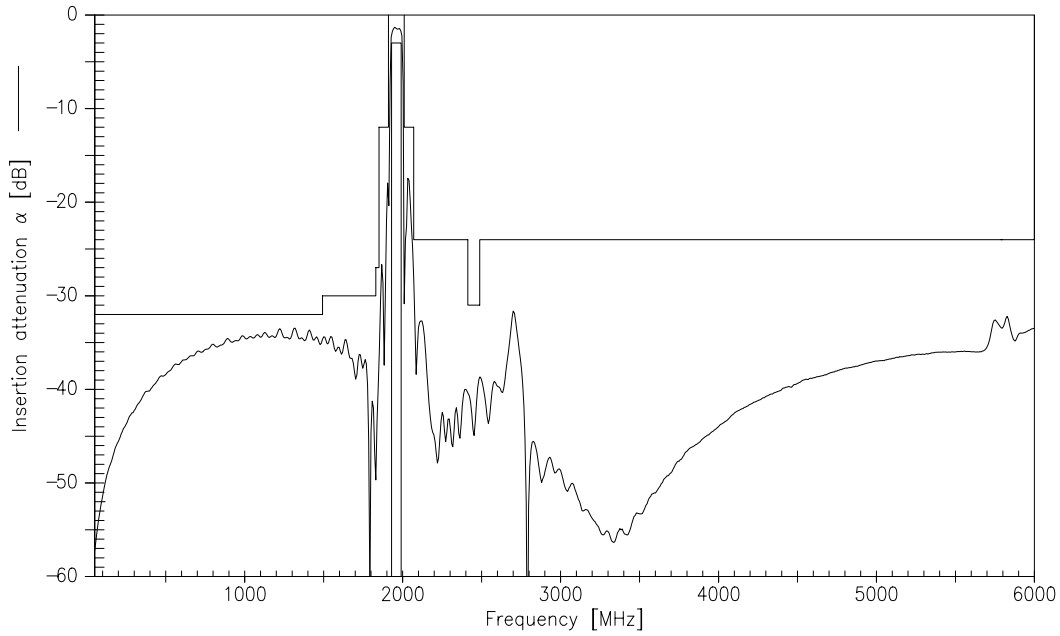
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_C		—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}					
1930,0 ...1990,0	MHz		—	2,4	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1930,0 ...1990,0	MHz		—	0,9	2,3	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		11	17	—	dB
2010,0 ...2070,0	MHz		9	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

Transfer function

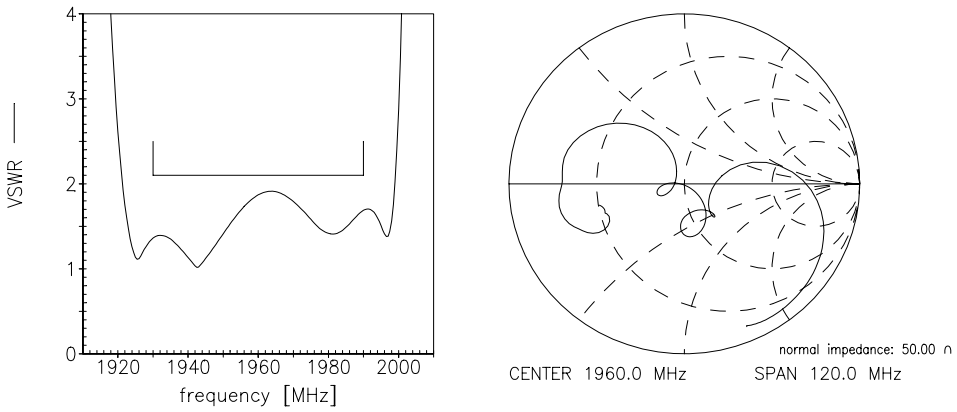


Transfer function (wide band)

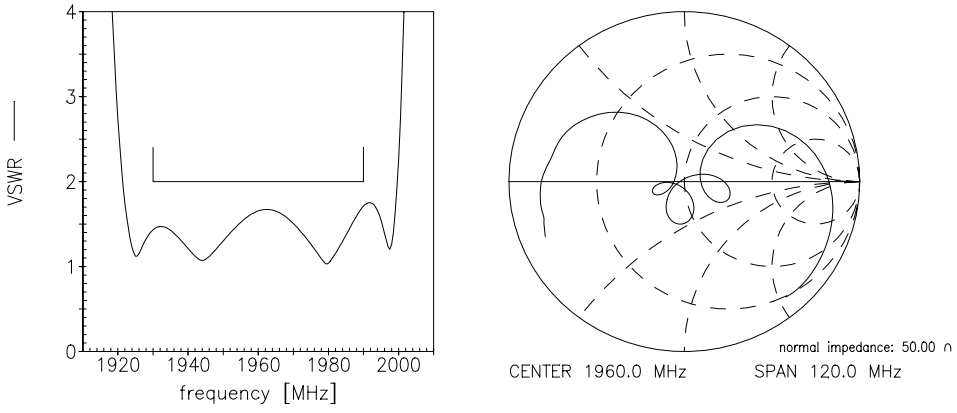


Reflection functions

S11



S22



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