EPCOS

SAW Components

Data Sheet B7802

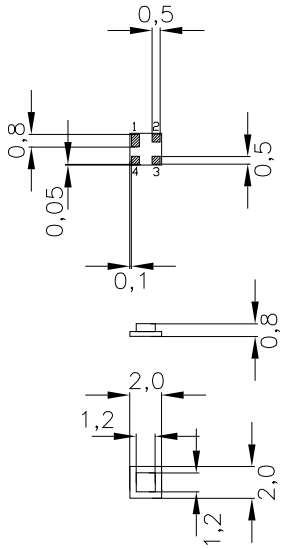
Chip sized SAW package DCS4A

Features

- Low-loss RF filter for mobile telephone PCS system, transmit path
- Usable passband 60 MHz
- No matching network required for operation at 50 Ω
- Package for **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

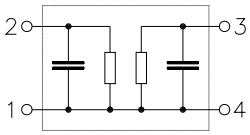
- Ni, gold-plated



Dimensions in mm, approx. weight 0,01g

Pin configuration

2	Input
1	Input - ground
3	Output
4	Output - ground



Type	Ordering code	Marking and Package according to	Packing according to
B7802	B39192-B7802-A510	C61157-A7-A63	F61074-V8154-Z000

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

Maximum ratings

Operable temperature range	T	– 40 / + 85	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and impedance 50 Ω
	P_{IN}	10	dBm	peak power of GSM signal, duty cycle 1:3
		8	dBm	CDMA signal

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

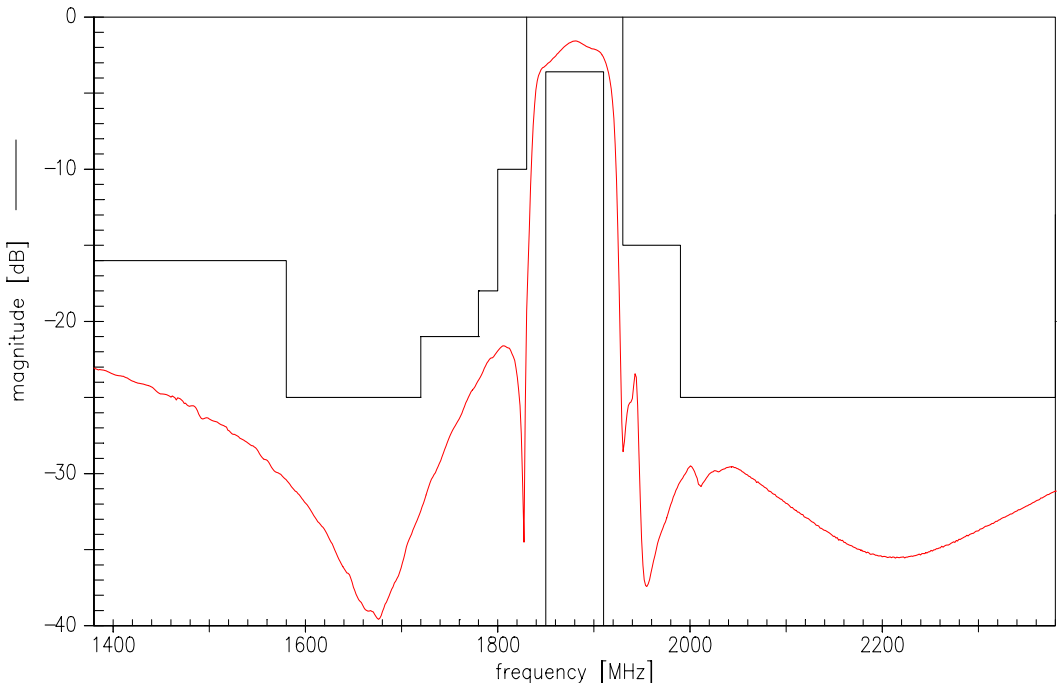
			min.	typ.	max.	
Center frequency	f_C		—	1880,00	—	MHz
Maximum insertion attenuation	α_{max}					
1850,0 ...1910,0	MHz		—	3,0	3,6	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1850,0 ...1910,0	MHz		—	1,5	2,1	dB
IVSWR						
1850,0 ...1910,0	MHz		—	2,0	2,2	
Attenuation	α					
10,0 ... 950,0	MHz		15,0	17,0	—	dB
950,0 ...1050,0	MHz		14,0	15,0	—	dB
1050,0 ...1580,0	MHz		16,0	18,0	—	dB
1580,0 ...1720,0	MHz		25,0	28,0	—	dB
1720,0 ...1780,0	MHz		21,0	23,0	—	dB
1780,0 ...1800,0	MHz		18,0	20,5	—	dB
1800,0 ...1830,0	MHz		10,0	20,0	—	dB
1930,0 ...1990,0	MHz		15,0	24,0	—	dB
1990,0 ...2400,0	MHz		25,0	28,0	—	dB
2400,0 ...2800,0	MHz		20,0	24,0	—	dB
2800,0 ...3500,0	MHz		15,0	18,0	—	dB
3500,0 ...6000,0	MHz		13,0	15,0	—	dB

Characteristics

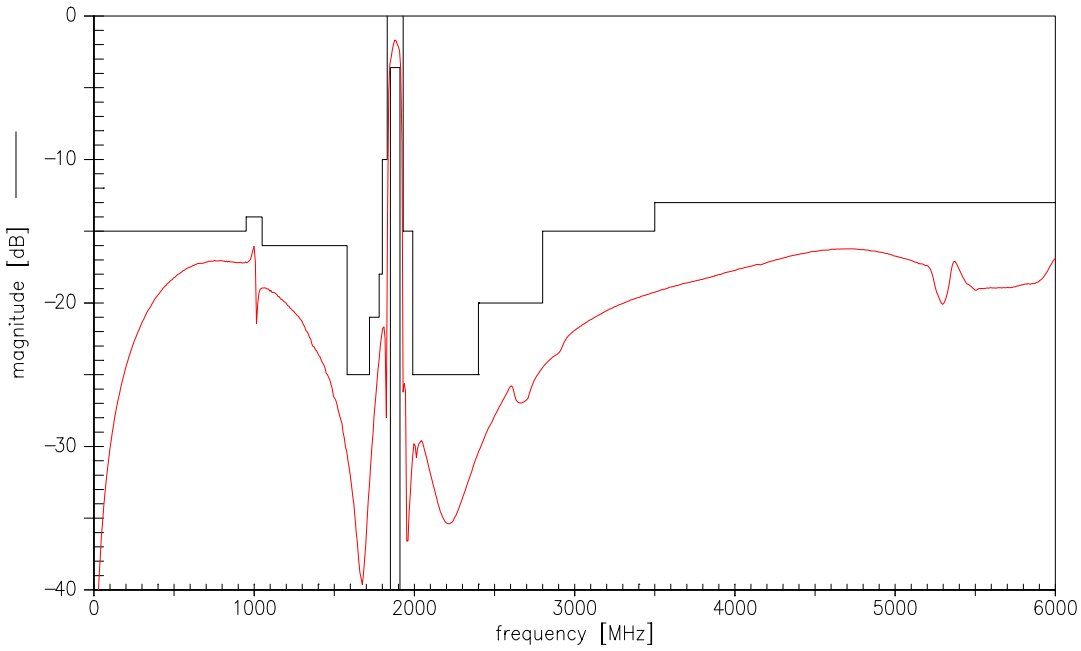
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	1880,00	—	MHz
Maximum insertion attenuation	α_{max}				
1850,0 ...1910,0 MHz		—	3,2	4,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1850,0 ...1910,0 MHz		—	1,8	2,8	dB
IVSWR					
1850,0 ...1910,0 MHz		—	2,0	2,2	
Attenuation	α				
10,0 ... 950,0 MHz		15,0	17,0	—	dB
950,0 ...1050,0 MHz		14,0	15,0	—	dB
1050,0 ...1580,0 MHz		16,0	18,0	—	dB
1580,0 ...1720,0 MHz		25,0	28,0	—	dB
1720,0 ...1780,0 MHz		21,0	23,0	—	dB
1780,0 ...1800,0 MHz		18,0	20,5	—	dB
1800,0 ...1830,0 MHz		6,0	16,0	—	dB
1930,0 ...1990,0 MHz		10,0	19,0	—	dB
1990,0 ...2400,0 MHz		25,0	28,0	—	dB
2400,0 ...2800,0 MHz		20,0	24,0	—	dB
2800,0 ...3500,0 MHz		15,0	18,0	—	dB
3500,0 ...6000,0 MHz		13,0	15,0	—	dB

Transfer function (narrowband with 25˚C spec)

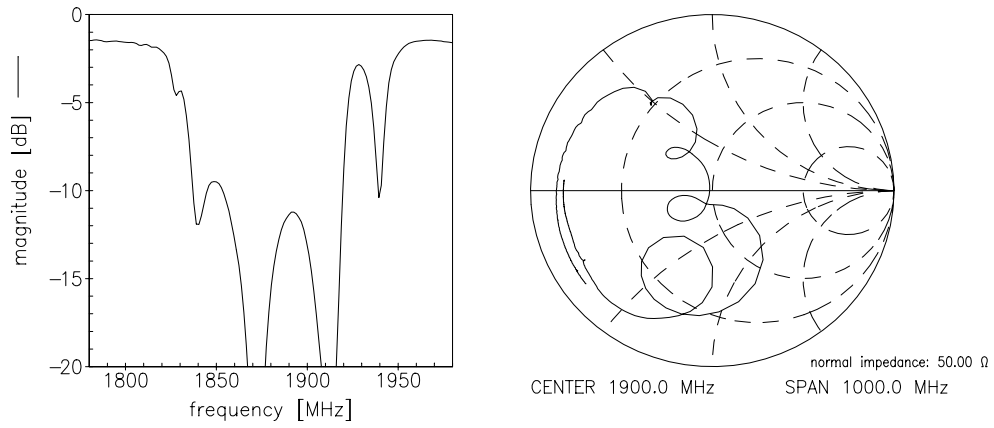


Transfer function (wideband)

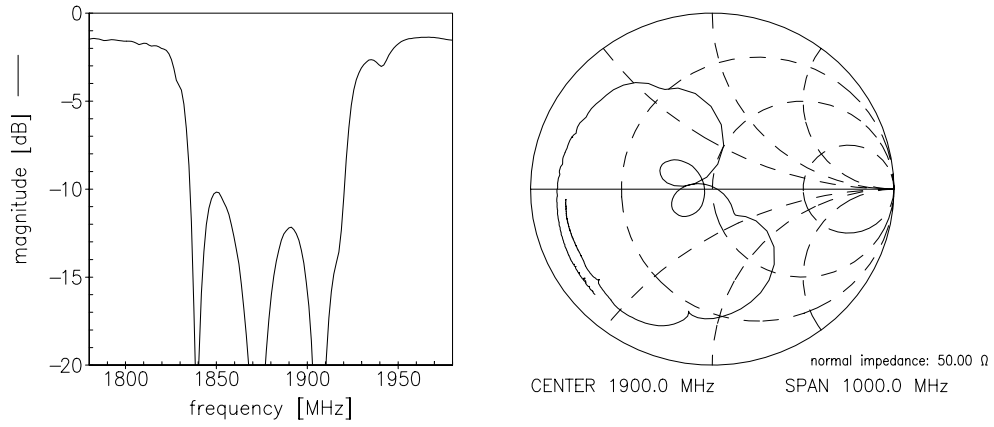


Matching (measurement)

S_{11}



S_{22}



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