EPCOS

SAW Components

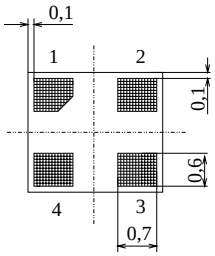
Data Sheet B7740



Chip **S**ized **S**AW **P**ackage **DCS4D**

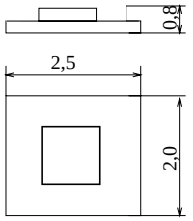
Features

- RF filter for mobile telephone PCS systems, receive path
- Low insertion loss, low amplitude ripple
- Usable passband 60 MHz
- Suitable for GPRS class 1 to 12
- Package for Surface Mounted Technology (SMT)



Terminals

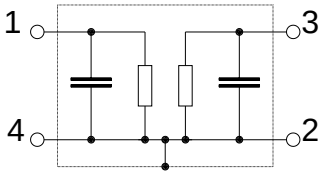
- Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

Pin configuration

1	Input
3	Output
2,4	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B7740	B39202-B7740-C810	C61157-A7-A89	F61074-V8125-Z000

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

Maximum ratings

Operating temperature range	T	– 10/+ 80	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50	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				

Characteristics

Operating temperature range : T = 25 ˚C +/-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		—	2,8	3,2	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
1930,0...	1990,0 MHz		—	1,3	1,7	dB
Attenuation		α				
DC ...	1500,0 MHz		28	31	—	dB
1500,0..	1830,0 MHz		25	29	—	dB
1830,0..	1910,0 MHz		12	14	—	dB
2010,0...	2070,0 MHz		12	14	—	dB
2070,0...	2500,0 MHz		21	23	—	dB
2500,0...	3000,0 MHz		24	28	—	dB
3000,0...	4500,0 MHz		28	35	—	dB
4500,0...	5200,0 MHz		26	32	—	dB
5200,0...	6000,0 MHz		24	30	—	dB
Input vswr						
1930,0...	1990,0 MHz		---	2,2	2,3	
Output vswr						
1930,0...	1990,0 MHz		---	2,2	2,3	
Tx band suppression		α				
1830,0..	1910,0 MHz		12	14	—	dB

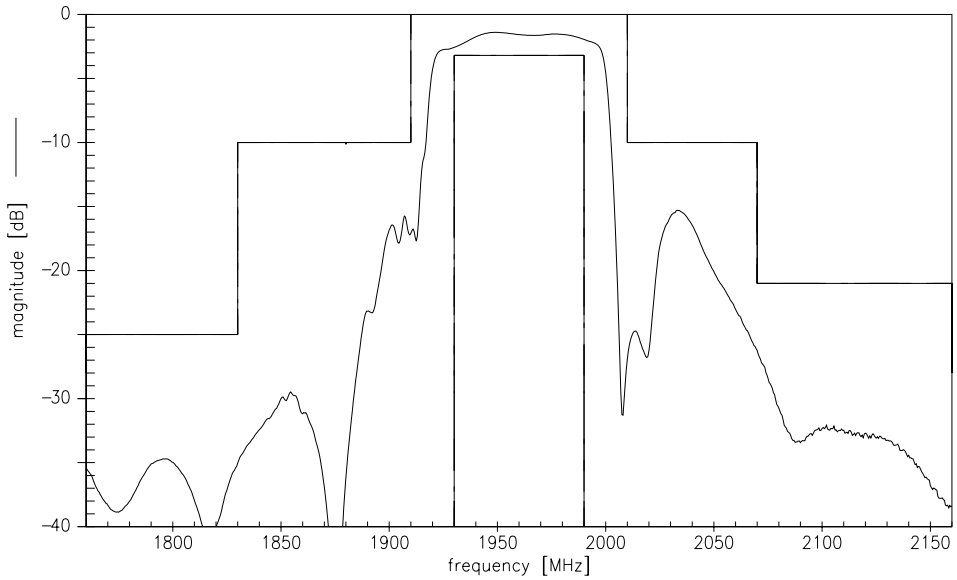
Characteristics

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

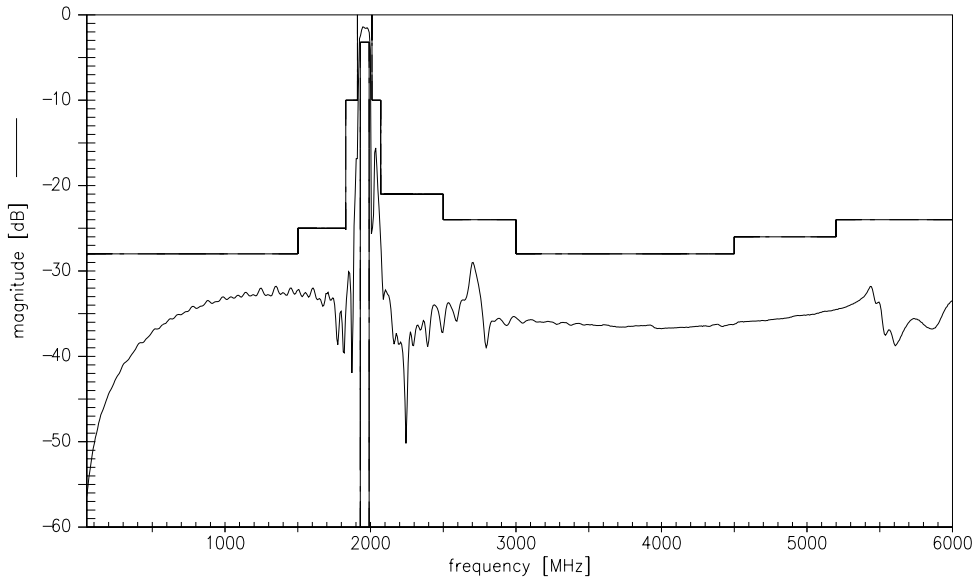
		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}				
1930,0... 1990,0 MHz		—	2,8	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1930,0... 1990,0 MHz		—	1,3	1,7	dB
Attenuation	α				
DC ... 1500,0 MHz		28	31	—	dB
1500,0.. 1830,0 MHz		25	29	—	dB
1830,0.. 1910,0 MHz		10	13	—	dB
2010,0... 2070,0 MHz		10	13	—	dB
2070,0... 2500,0 MHz		21	23	—	dB
2500,0... 3000,0 MHz		24	28	—	dB
3000,0... 4500,0 MHz		28	35	—	dB
4500,0... 5200,0 MHz		26	32	—	dB
5200,0... 6000,0 MHz		24	30	—	dB
Input vswr					
1930,0... 1990,0 MHz		---	2,2	2,3	
Output vswr					
1930,0... 1990,0 MHz		---	2,2	2,3	
Tx band suppression	α				
1830,0.. 1910,0 MHz		10	13	—	dB

Transfer function

narrow band

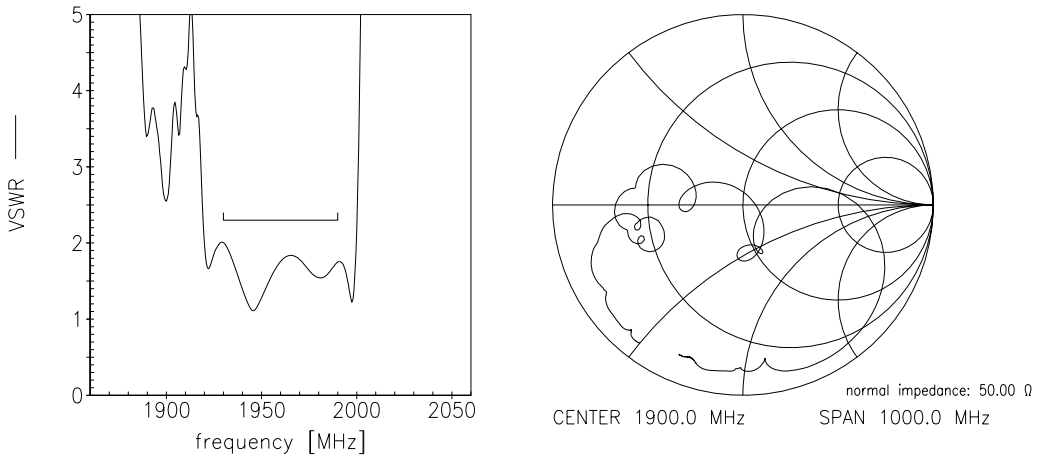


wide band

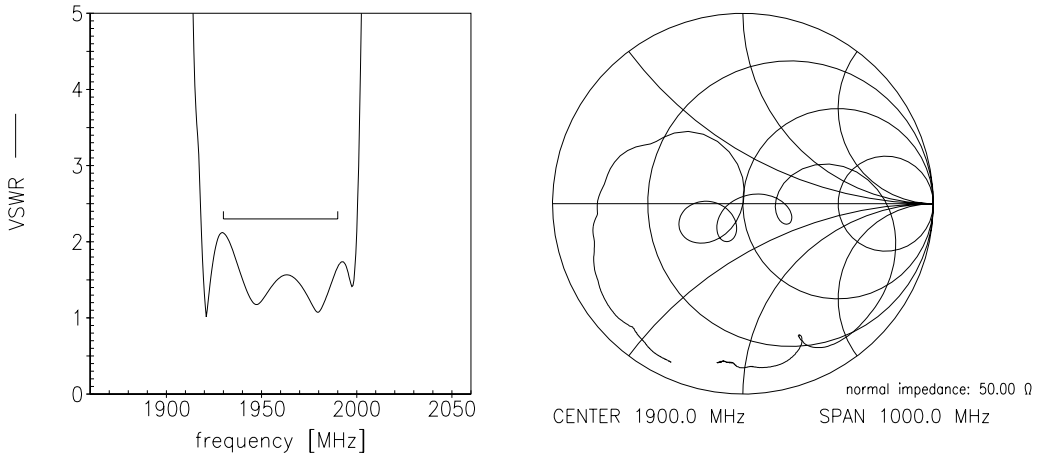


Reflection functions

S_{11}



S_{22}



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