



SAW Components

Data Sheet B7740





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Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



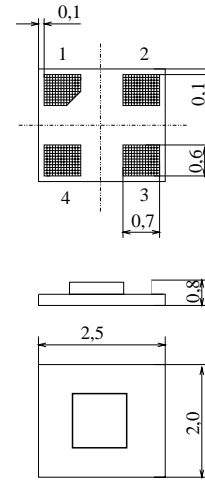
Chip Sized SAW Package DCS4D

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

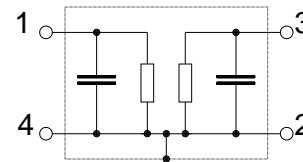
- Gold-plated Ni



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 Sensitive Device (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, duty cycle 4:8
GSM1800, GSM1900 tx bands	P_{IN}	12	dBm	



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Characteristics

Operating temperature range : $T = 25\text{ °C} \pm 2\text{ °C}$
 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}	—	2,8	3,2	dB
1930,0... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,3	1,7	dB
1930,0... 1990,0 MHz					
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: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation 1930,0... 1990,0 MHz	α_{max}	—	2,8	3,2	dB
Amplitude ripple (p-p) 1930,0... 1990,0 MHz	$\Delta\alpha$	—	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 1830,0.. 1910,0 MHz	α	10	13	—	dB



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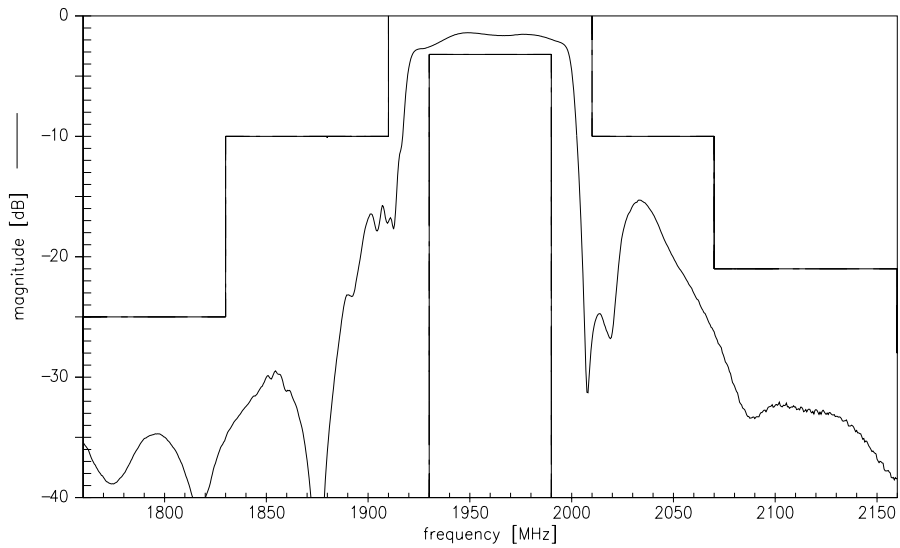
1960,0 MHz

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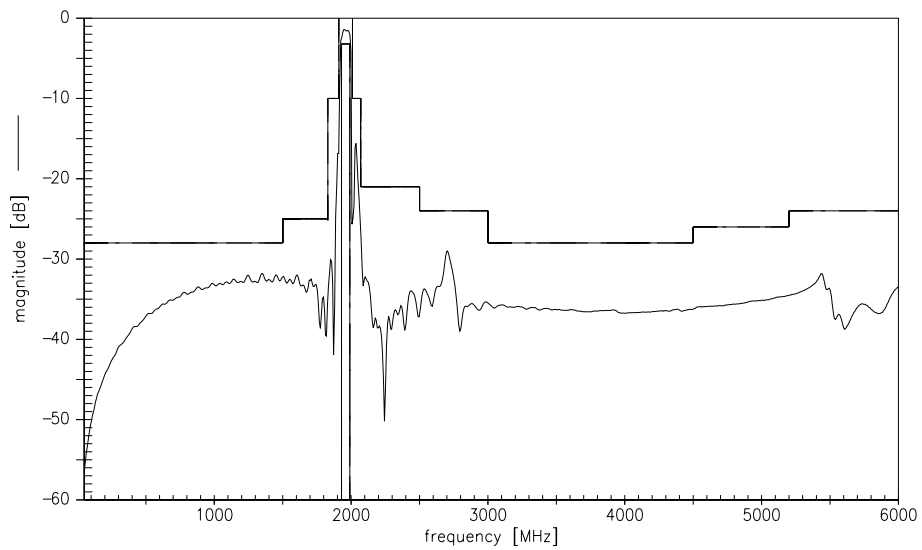


Transfer function

narrow band



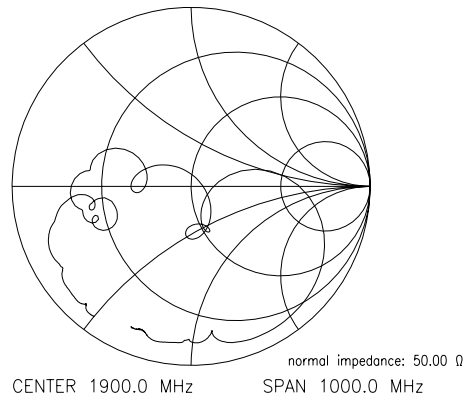
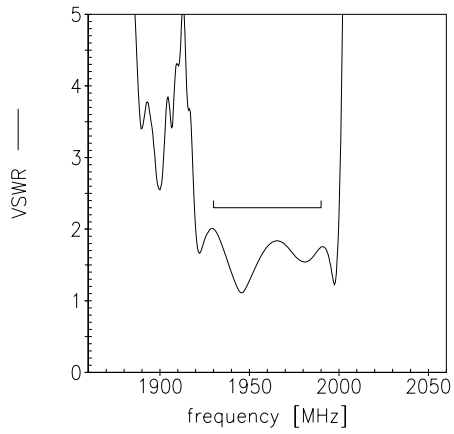
wide band



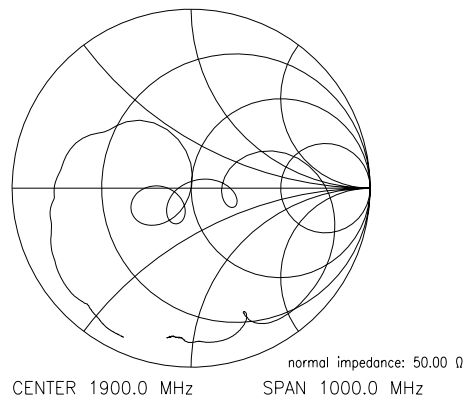
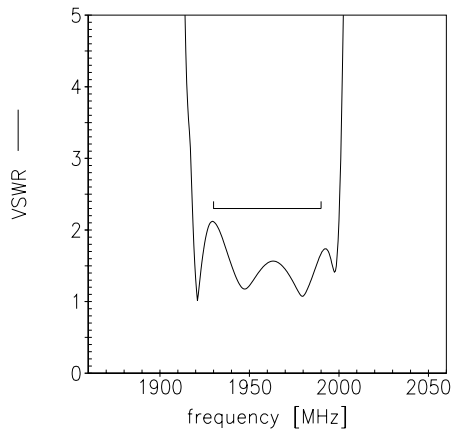


Reflection functions

S_{11}



S_{22}





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