



# SAW Mobile Communications

## Series/Type: **B7740**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39202B7740C810	B39202B9008E610	06.07.2007	31.01.2008	30.04.2008

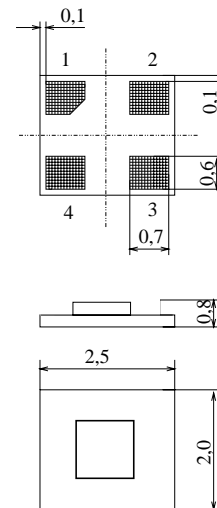
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**Chip Sized SAW Package DCS4D**
**Features**

- 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**

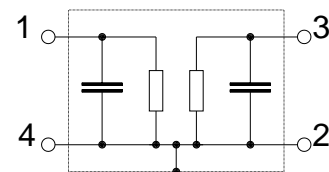
- Gold-plated Ni



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	$P_{IN}$	12	dBm	
tx bands				


**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.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,8	3,2	dB
1930,0... 1990,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,3	1,7	dB
1930,0... 1990,0 MHz					
<b>Attenuation</b>	$\alpha$				
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
<b>Input vswr</b>					
1930,0... 1990,0 MHz		---	2,2	2,3	
<b>Output vswr</b>					
1930,0... 1990,0 MHz		---	2,2	2,3	
<b>Tx band suppression</b>	$\alpha$				
1830,0.. 1910,0 MHz		12	14	—	dB

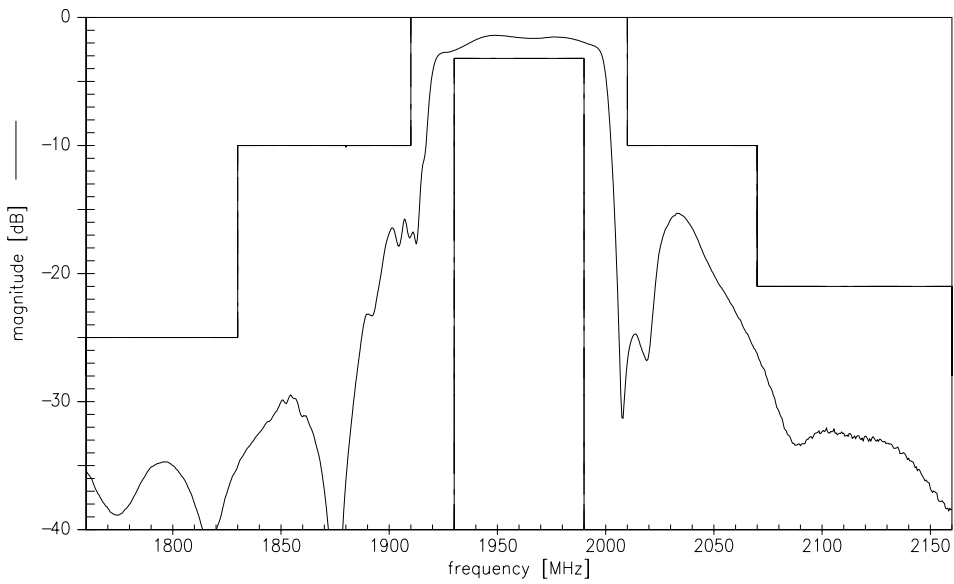

**Characteristics**

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

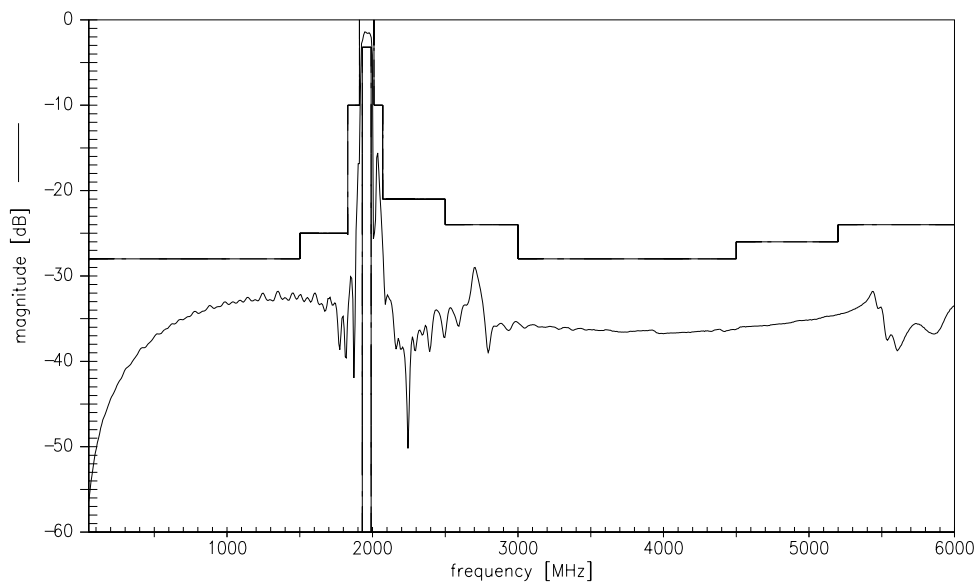
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,8	3,2	dB
1930,0... 1990,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,3	1,7	dB
1930,0... 1990,0 MHz					
<b>Attenuation</b>	$\alpha$				
DC ... 1500,0 MHz		28	31	—	dB
1500,0.. 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
<b>Input vswr</b>					
1930,0... 1990,0 MHz		---	2,2	2,3	
<b>Output vswr</b>					
1930,0... 1990,0 MHz		---	2,2	2,3	
<b>Tx band suppression</b>	$\alpha$				
1830,0.. 1910,0 MHz		10	13	—	dB



**Transfer function**  
**narrow band**



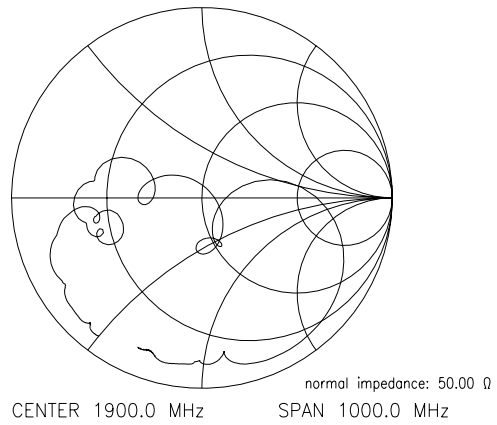
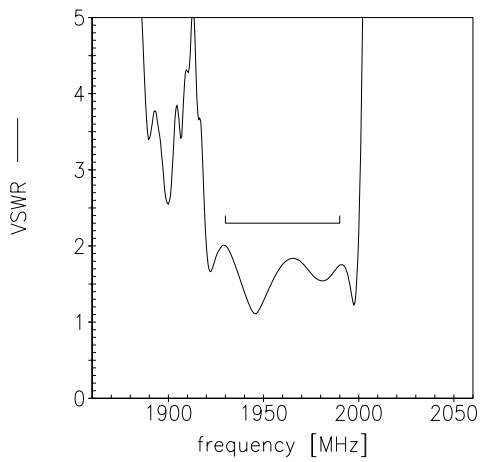
**wide band**



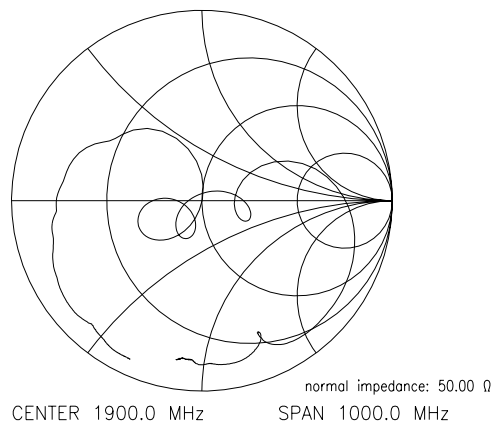
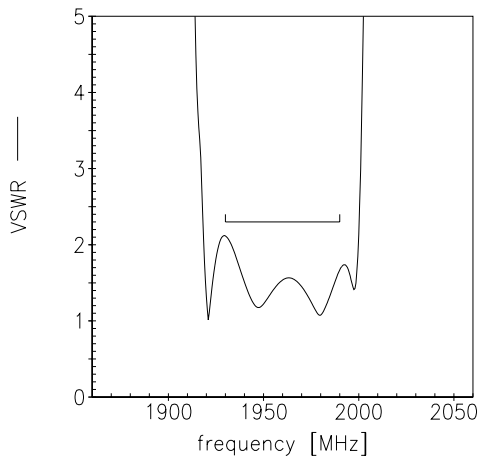


Reflection functions

$S_{11}$



$S_{22}$



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