



# SAW Components

Data Sheet B7733

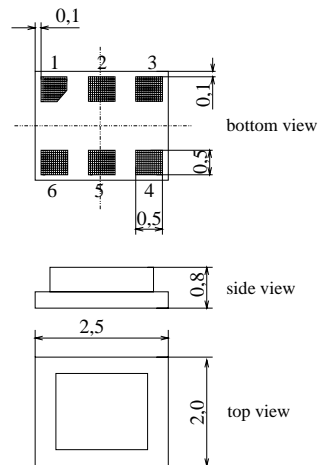




**Features**

- Low-loss RF filter for mobile telephone cellular system, receive path
- Low amplitude ripple
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 100 Ω
- Package for **Surface Mounted Technology (SMT)**

**Chip Size SAW package DCS6I**



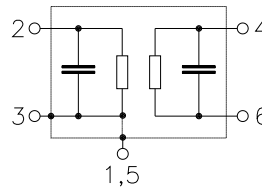
**Terminals**

- Ni, gold-plated

Dimensions in mm, approx. weight 0,014g

**Pin configuration**

- 2 Input
- 4 Balanced output
- 6 Balanced output
- 1,3,5 Ground, to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7733	B39881-B7733-C610	C61157-A7-A76	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 40 / + 85	°C	source impedance 50 Ω CDMA signal
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	5	V	
Input power max.	$P_{IN}$	0	dBm	



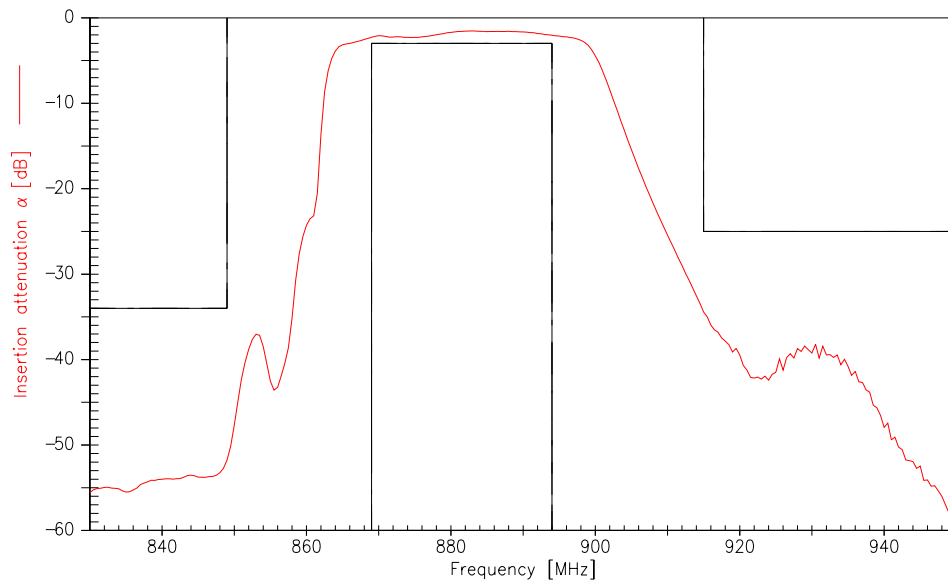
**Characteristics**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$  (unbalanced)  
 Terminating load impedance:  $Z_L = 100 \Omega$  (balanced)

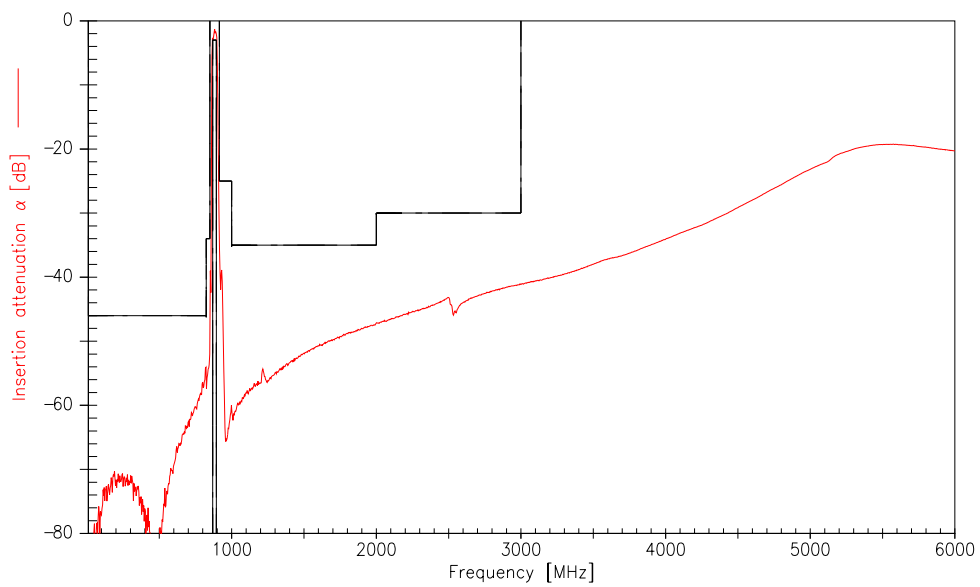
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$				
869,0 ... 894,0 MHz		—	2,7	3,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
869,0 ... 894,0 MHz		—	1,2	1,5	dB
<b>Input VSWR</b>					
869,0 ... 894,0 MHz		—	2,0	2,1	
<b>Output VSWR</b>					
869,0 ... 894,0 MHz		—	2,0	2,1	
<b>Output amplitude imbalance (<math> S_{31}/S_{21} </math>)</b>					
869,0 ... 894,0 MHz		-1,5	—	2,0	dB
<b>Output phase imbalance (<math>\phi(S_{31})-\phi(S_{21})+180^\circ</math>)</b>					
869,0 ... 894,0 MHz		-5,0	—	7,0	degree
<b>Attenuation</b>	$\alpha$				
0,0 ... 824,0 MHz		46,0	53,0	—	dB
824,0 ... 849,0 MHz		34,0	41,0	—	dB
915,0 ... 1000,0 MHz		25,0	30,0	—	dB
1000,0 ... 2000,0 MHz		35,0	47,0	—	dB
2000,0 ... 3000,0 MHz		30,0	40,0	—	dB



Transfer function



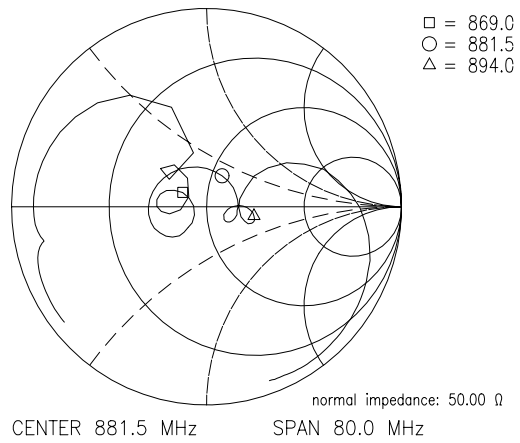
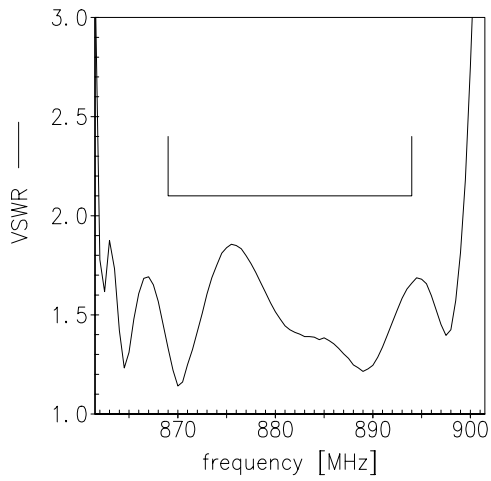
Transfer function (wideband)



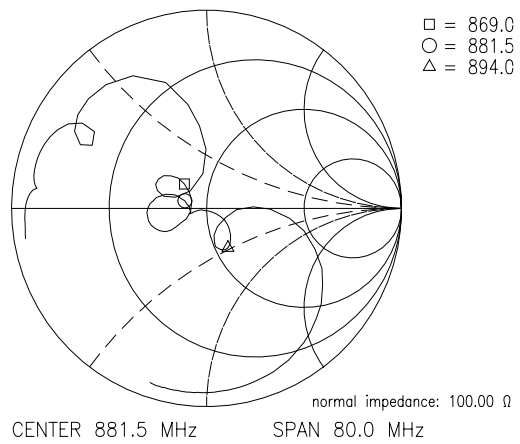
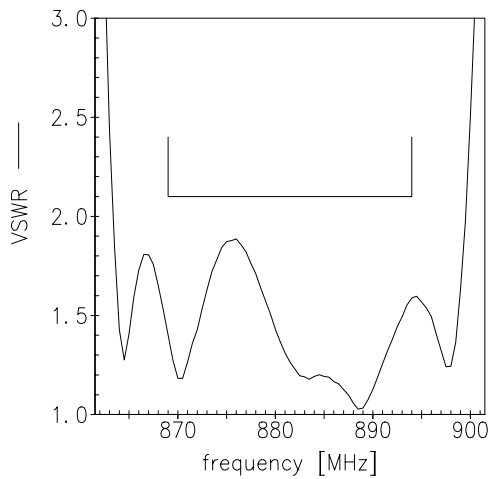


Reflection functions

$S_{11}$

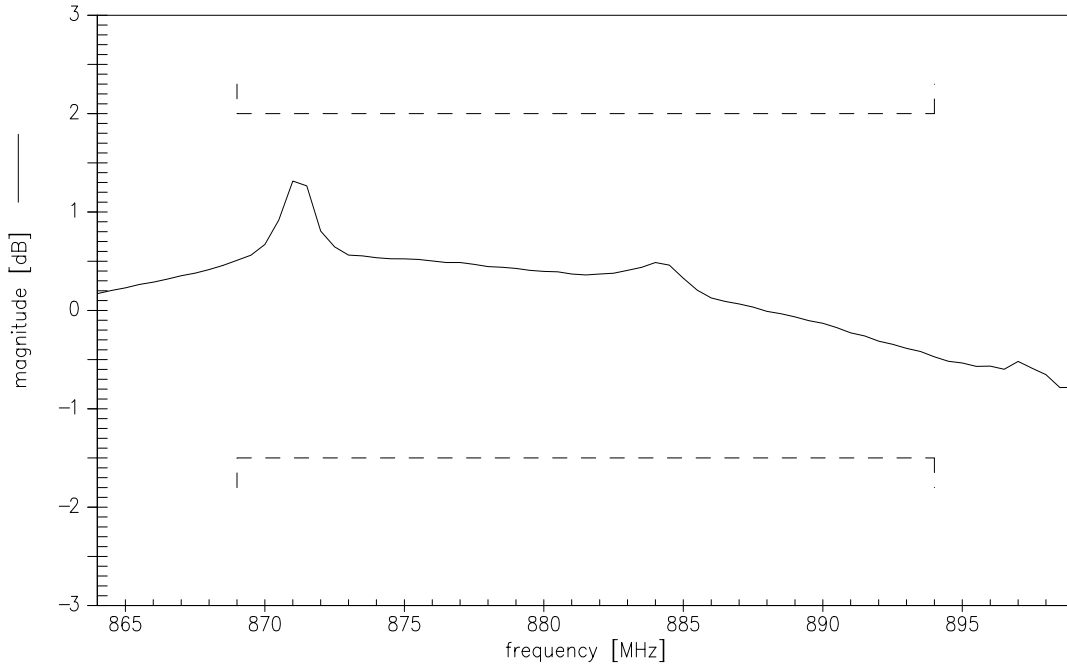


$S_{22}$

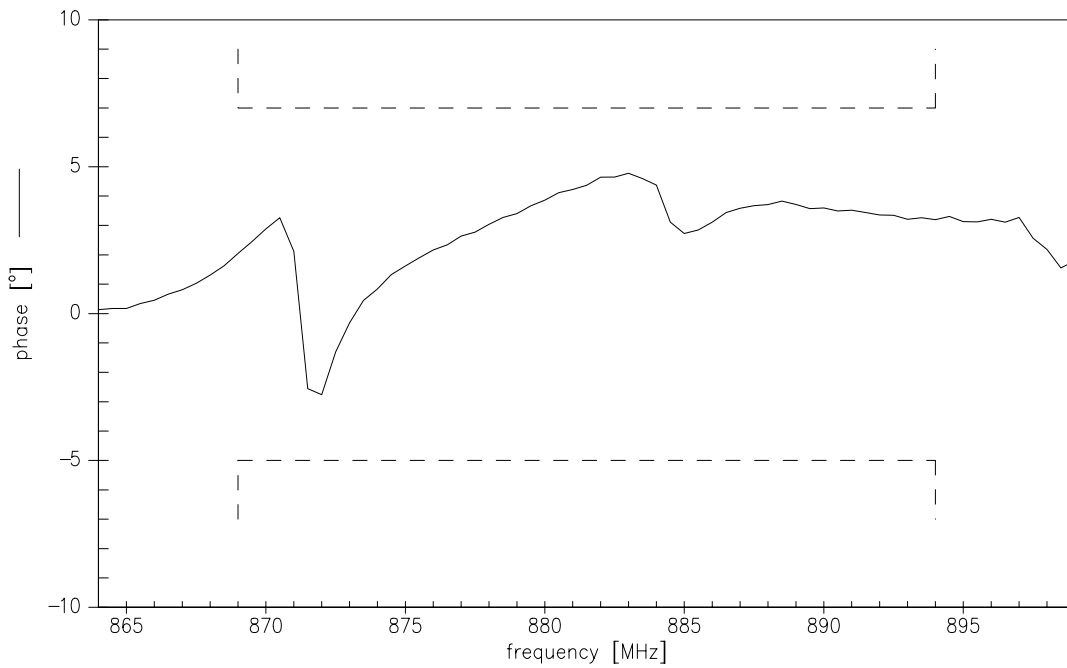




Output amplitude balance ( $|S_{31}/S_{21}|$ )



Output phase balance ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ )





**SAW Components**

**B7733**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

Data Sheet



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