



# SAW Components

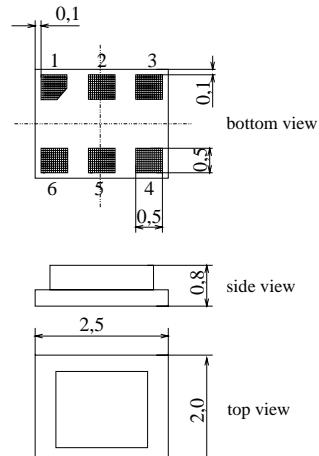
Data Sheet B7733

Data Sheet

**SAW Components**
**B7733**
**Low-Loss Filter for Mobile Communication**
**881,5 MHz**
**Data Sheet**

**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  $50 \Omega$  to  $100 \Omega$
- Package for **Surface Mounted Technology (SMT)**

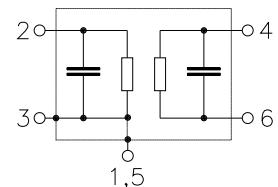
**Chip Size SAW package DCS61**

**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	$T$	$-40 / +85$	$^{\circ}\text{C}$	
Storage temperature range	$T_{\text{stg}}$	$-40 / +85$	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	5	V	
Input power max.	$P_{\text{IN}}$	0	dBm	source impedance $50 \Omega$ CDMA signal

**SAW Components****B7733****Low-Loss Filter for Mobile Communication****881,5 MHz****Data Sheet****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)

			<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>		$f_C$	—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	869,0 ... 894,0	MHz	$\alpha_{\max}$	2,7	3,0	dB
<b>Amplitude ripple (p-p)</b>	869,0 ... 894,0	MHz	$\Delta\alpha$	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

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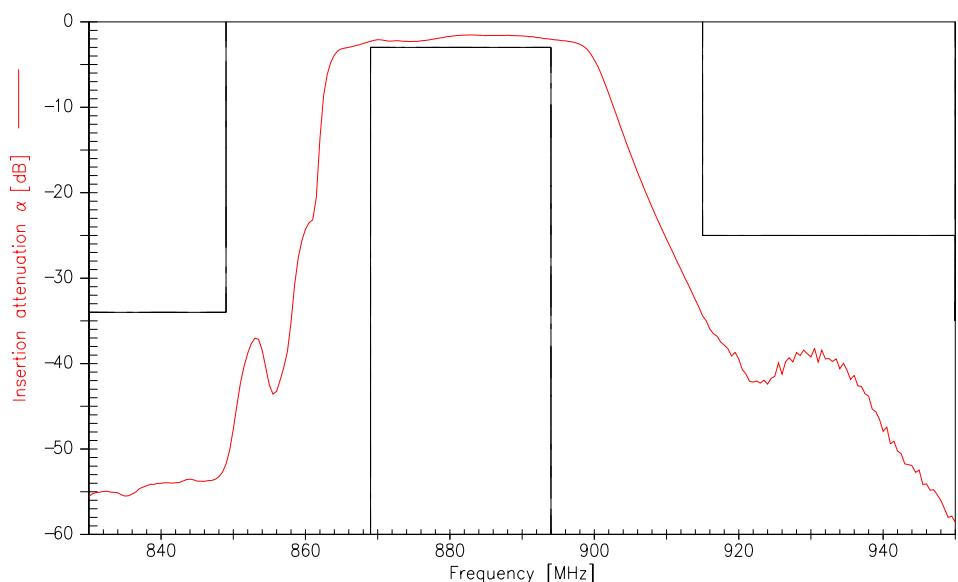
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**881,5 MHz**

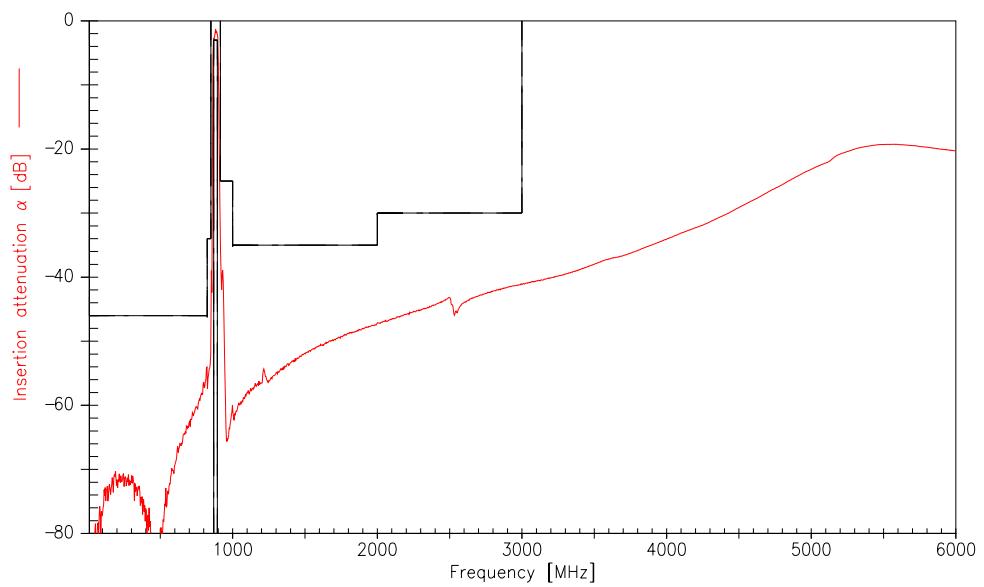
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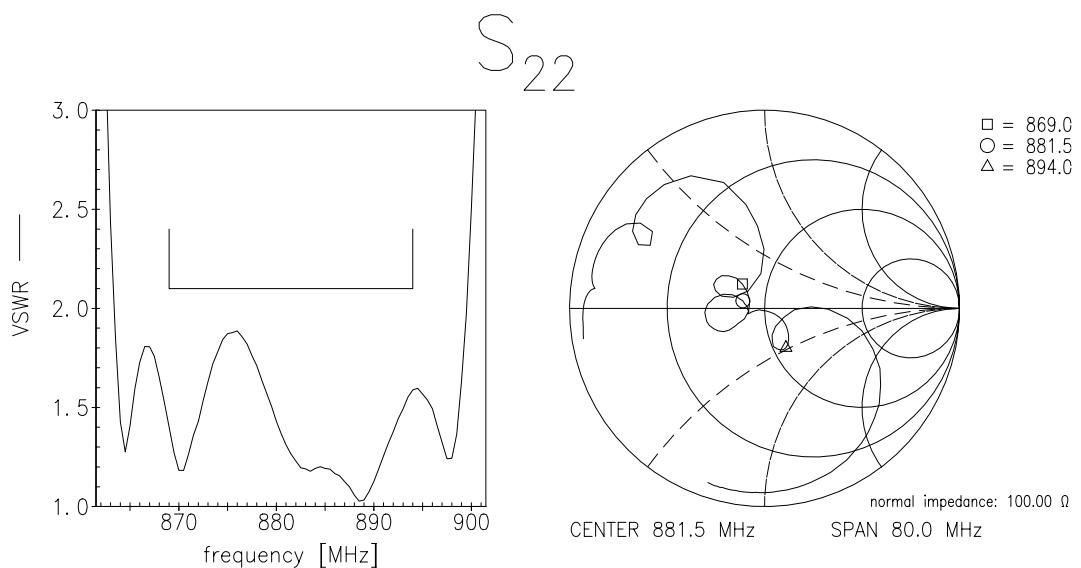
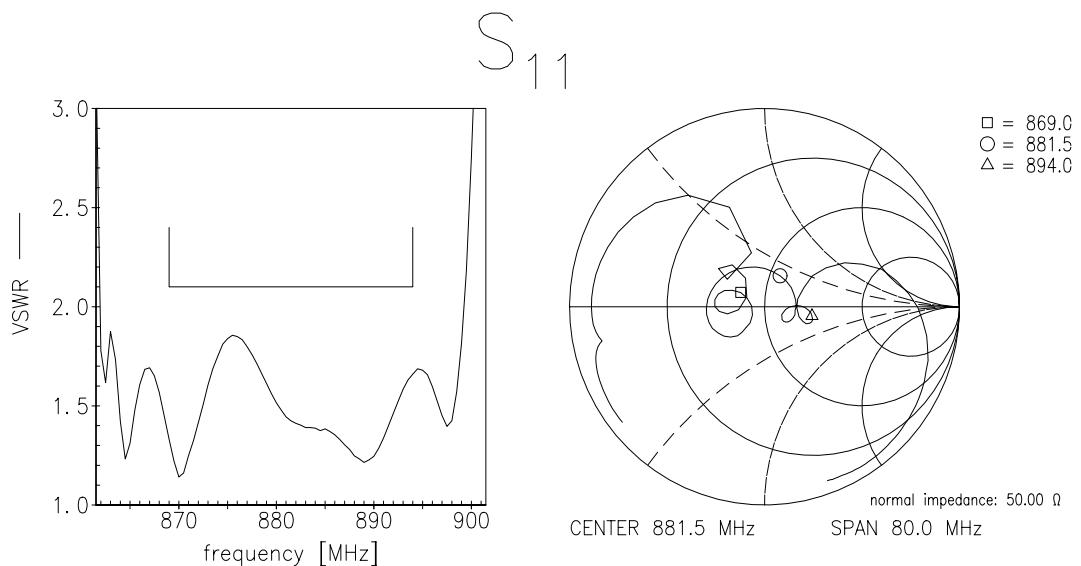


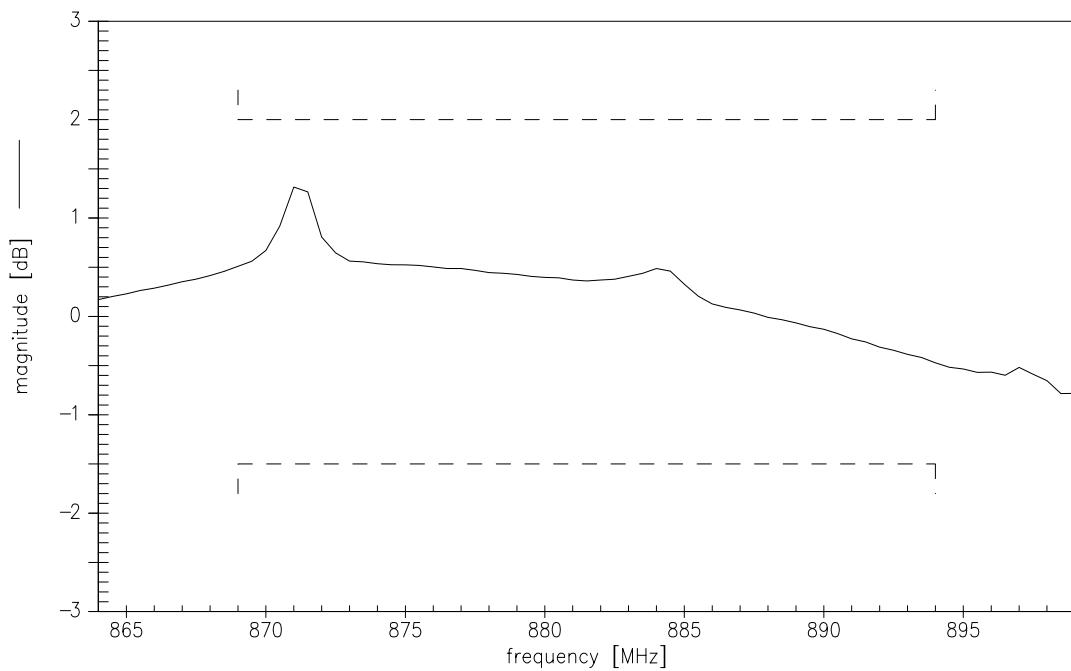
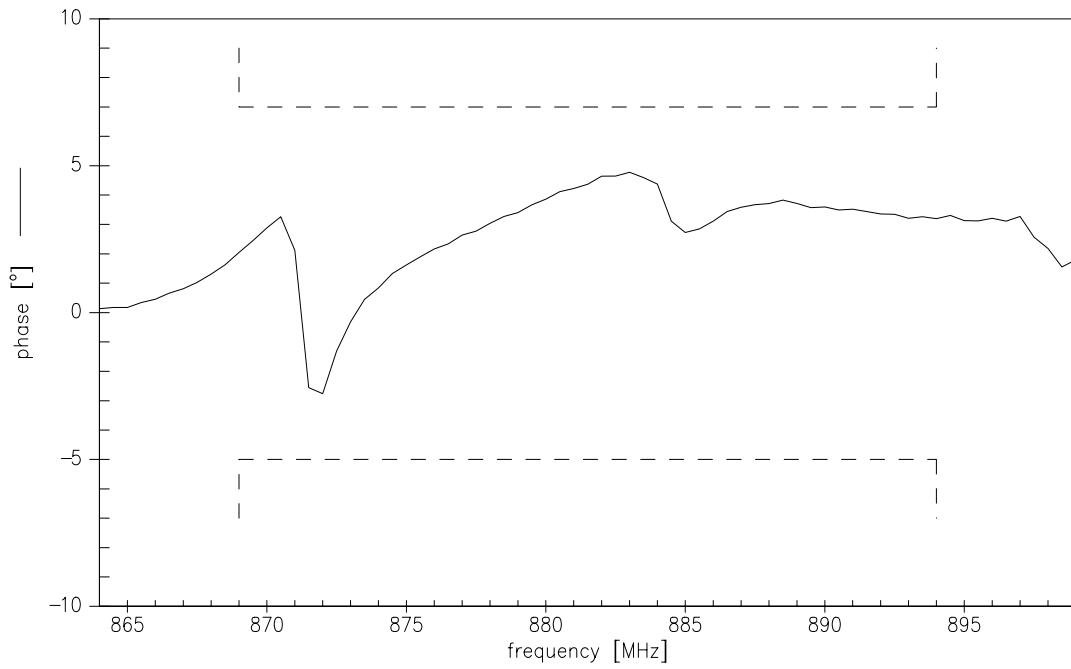
**Transfer function**



**Transfer function (wideband)**





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

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




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