



# SAW Components

Data Sheet B7833





**SAW Components**

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**Low-Loss Filter for Mobile Communication**

**942,5 MHz**

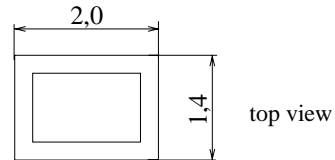
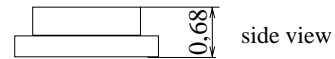
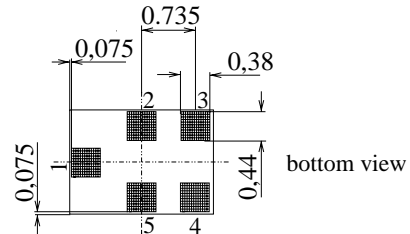
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**Features**

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Usable passband 35 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Ceramic Package for **Surface Mounted Technology (SMT)**

**Chip sized SAW package QCS5C**



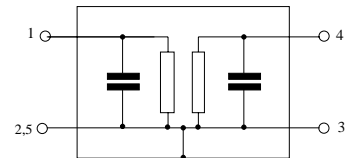
Dimensions in mm, approx. weight 0,007 g

**Terminals**

- Ni, gold-plated

**Pin configuration**

- 1 Input, unbalanced
- 4 Output, unbalanced
- 2, 3, 5 Case ground
- 2, 3, 5 to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7833	B39941-B7833-C710	C61157-A7-A111	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 25 / + 85	°C	machine model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	3	V	
ESD voltage	$V_{ESD}^*$	100*	V	
Input power at GSM850, GSM900, GSM1800 and GSM1900 Tx bands	$P_{IN}$	15	dBm	

\* acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



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**Characteristics**

Operating temperature:  $T = 25 \pm 2 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_C$		—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
		925,0 ... 960,0 MHz	—	1,7	2,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		925,0 ... 960,0 MHz	—	0,7	1,2	dB
<b>Input VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,1	
<b>Output VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,1	
<b>Attenuation</b>	$\alpha$					
		0,0 ... 890,0 MHz	33	36	—	dB
		890,0 ... 905,0 MHz	22	28	—	dB
		905,0 ... 915,0 MHz	19	22	—	dB
		980,0 ... 1015,0 MHz	22	24	—	dB
		1015,0 ... 6000,0 MHz	25	33	—	dB



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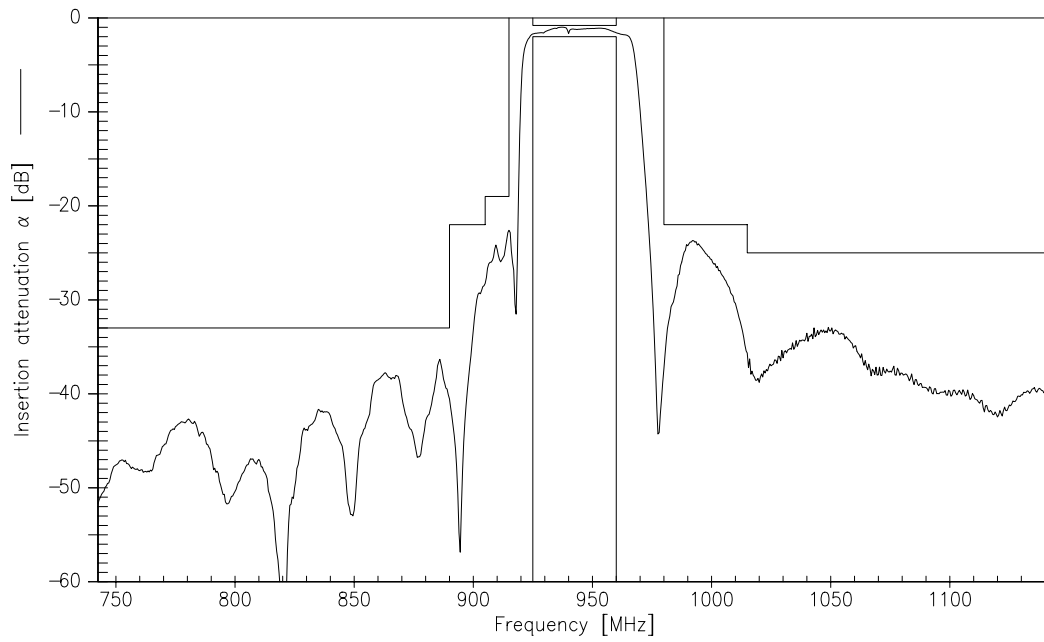
**Characteristics**

Operating temperature:  $T = -25 \dots +85 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

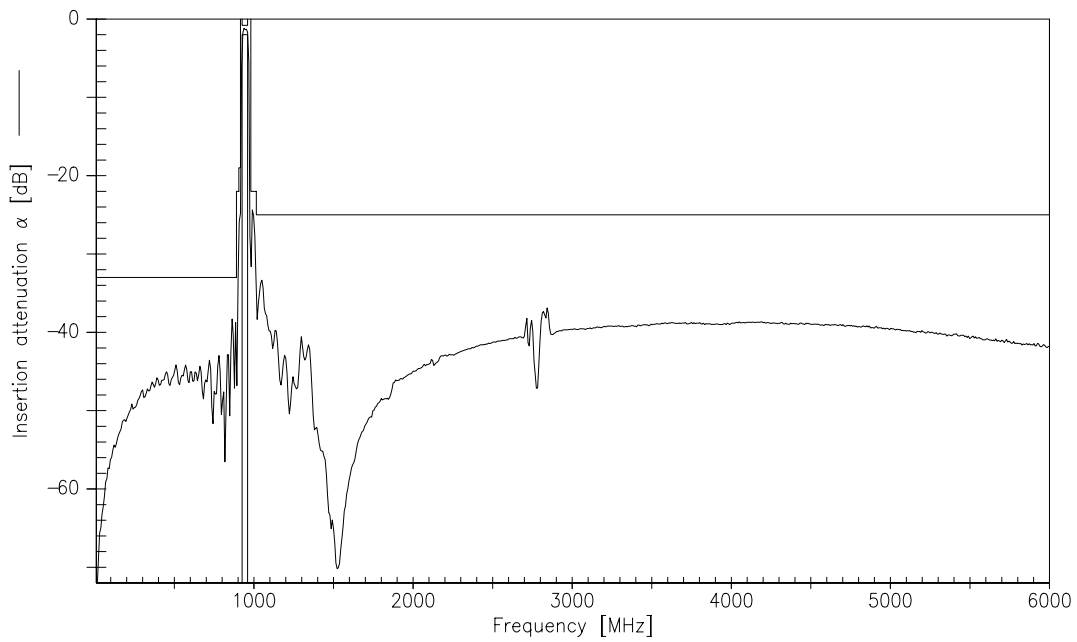
			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
		925,0 ... 960,0 MHz	—	1,8	2,3	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		925,0 ... 960,0 MHz	—	0,9	1,5	dB
<b>Input VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,1	
<b>Output VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,1	
<b>Attenuation</b>	$\alpha$					
		0,0 ... 890,0 MHz	33	36	—	dB
		890,0 ... 905,0 MHz	22	25	—	dB
		905,0 ... 915,0 MHz	19	22	—	dB
		980,0 ... 1015,0 MHz	22	24	—	dB
		1015,0 ... 6000,0 MHz	25	32	—	dB



**Transfer function (measurement at 25 °C)**



**Transfer function (wideband measurement)**





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