



# SAW Components

Data Sheet B7842





**SAW Components**

**B7842**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

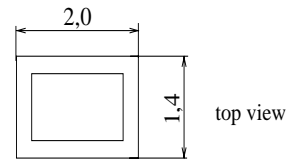
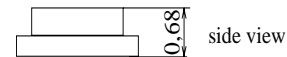
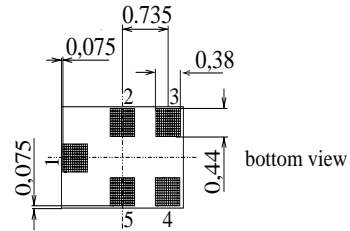
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**Features**

- Low-loss RF filter for mobile telephone GSM850 systems, receive path
- Usable passband 25 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Suitable for GPRS Class 1 to 12
- Ceramic Package for Surface Mounted Technology (SMT)

**Chip sized SAW package QCS5C**



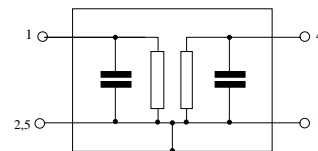
Dimensions in mm, approx. weight 0,007 g

**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
B7842	B39881-B7842-C710	C61157-A7-A111	F61074-V8151-Z0000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 30 / + 85	°C	
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	5	V	
Input power max.	$P_{IN}$	15	dBm	



**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>	$f_C$		—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	869,0 ... 894,0 MHz	—	1,6	2,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	869,0 ... 894,0 MHz	—	0,6	1,0	dB
<b>Input VSWR</b>		869,0 ... 894,0 MHz	—	1,7	2,0	
<b>Output VSWR</b>		869,0 ... 894,0 MHz	—	1,7	2,0	
<b>Attenuation</b>	$\alpha$					
		0,0 ... 450,0 MHz	38,0	44,0	—	dB
		450,0 ... 800,0 MHz	30,0	35,0	—	dB
		800,0 ... 849,0 MHz	24,0	26,0	—	dB
		914,0 ... 960,0 MHz	24,0	26,0	—	dB
		960,0 ... 6000,0 MHz	26,0	33,0	—	dB



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**Characteristics**

Operating temperature:  $T = -30 \dots +85 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_C$		—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	869,0 ... 894,0 MHz	—	1,6	2,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	869,0 ... 894,0 MHz	—	0,6	1,3	dB
<b>Input VSWR</b>		869,0 ... 894,0 MHz	—	1,7	2,1	
<b>Output VSWR</b>		869,0 ... 894,0 MHz	—	1,7	2,1	
<b>Attenuation</b>	$\alpha$					
		0,0 ... 450,0 MHz	38,0	44,0	—	dB
		450,0 ... 800,0 MHz	30,0	35,0	—	dB
		800,0 ... 849,0 MHz	24,0	26,0	—	dB
		914,0 ... 960,0 MHz	24,0	26,0	—	dB
		960,0 ... 6000,0 MHz	26,0	33,0	—	dB



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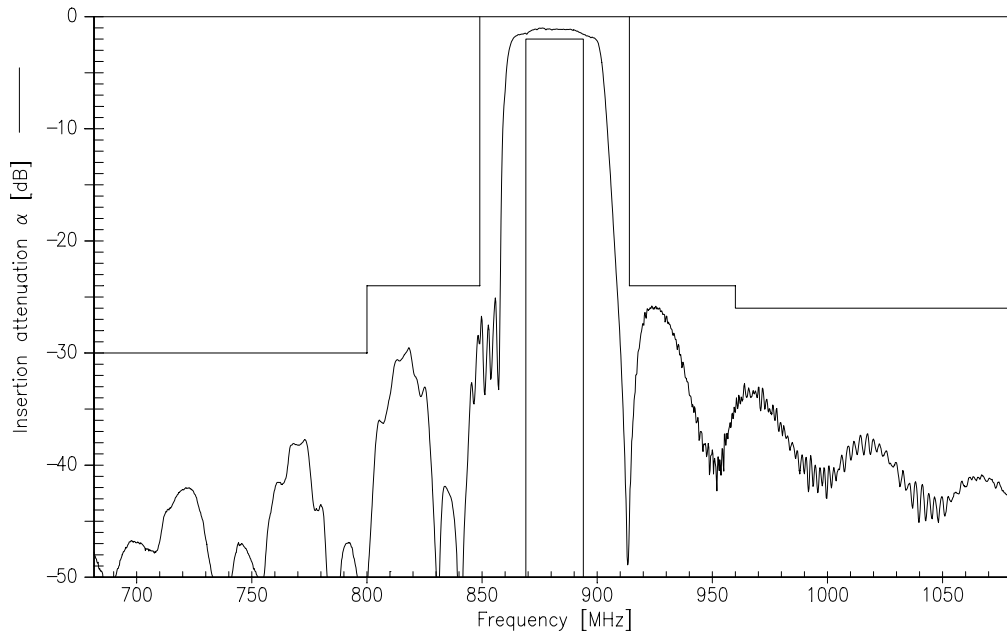
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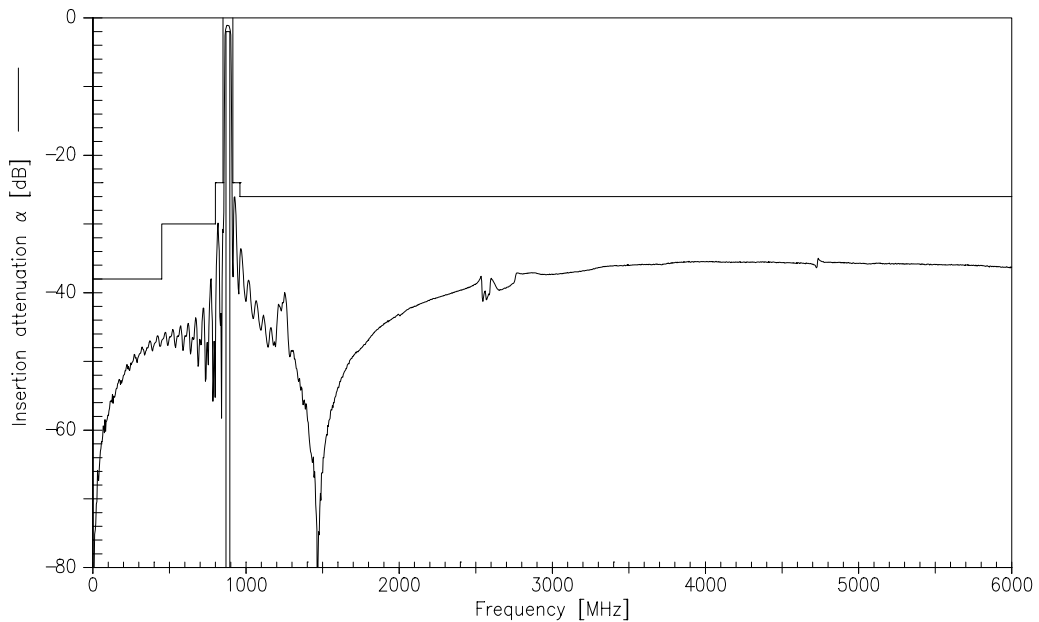
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**Transfer function (Narrowband measurement)**



**Transfer function (Wideband measurement)**





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