



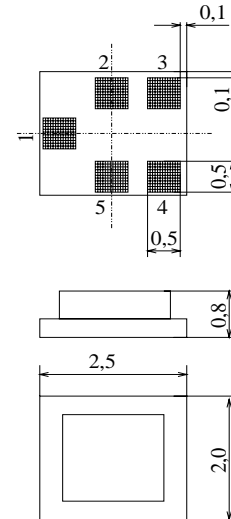
# SAW Components

Data Sheet B7731



**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 QCS5A**


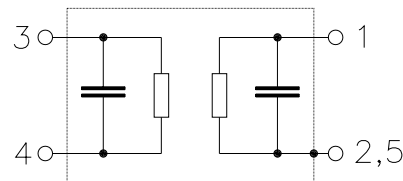
Dimensions in mm, approx. weight 0,015g

**Terminals**

- Ni, gold-plated

**Pin configuration**

- |     |                   |
|-----|-------------------|
| 1   | Input, unbalanced |
| 3,4 | Balanced output   |
| 2,5 | Case ground       |



Type	Ordering code	Marking and Package according to	Packing according to
B7731	B39881-B7731-B610	C61157-A7-A71	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 30 / + 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	



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Low-Loss Filter for Mobile Communication

881,5 MHz

Data Sheet



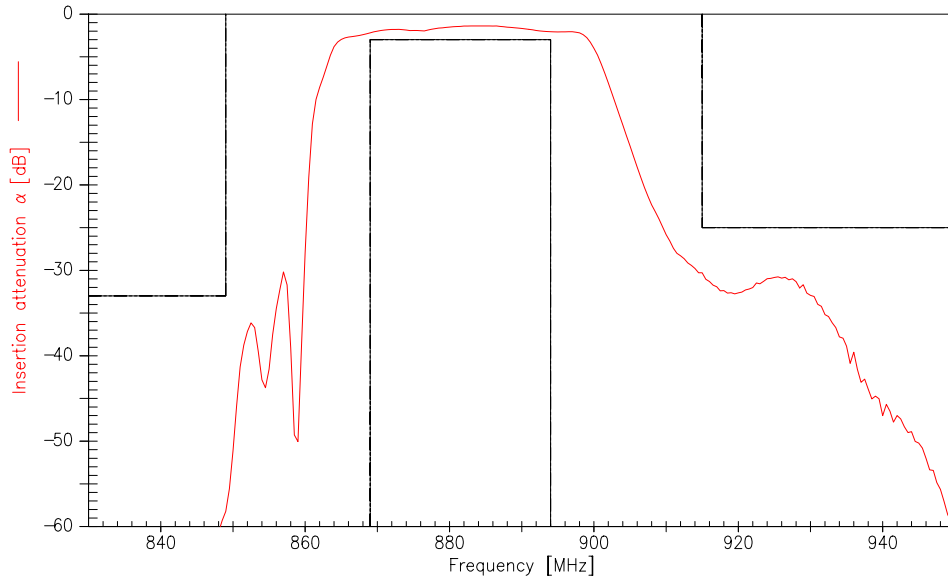
**Characteristics**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50$  Ω  
 Terminating load impedance:  $Z_L = 100$  Ω

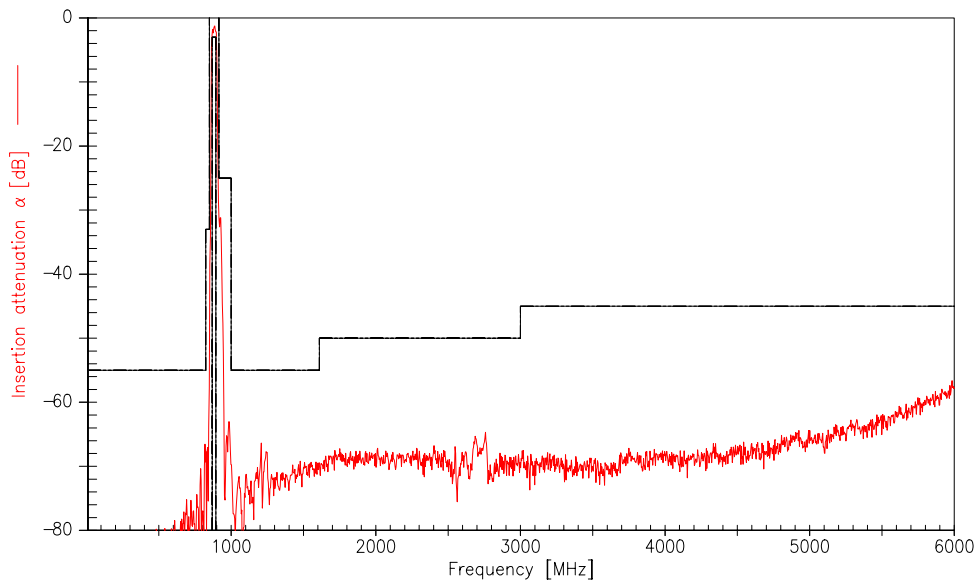
				min.	typ.	max.	
<b>Center frequency</b>	$f_C$			—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$						
		869,0 ... 894,0	MHz	—	2,4	3,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$						
		869,0 ... 894,0	MHz	—	1,0	1,6	dB
<b>Input VSWR</b>							
		869,0 ... 894,0	MHz	—	1,9	2,0	
<b>Output VSWR</b>							
		869,0 ... 894,0	MHz	—	2,0	2,1	
<b>Attenuation</b>	$\alpha$						
		0,0 ... 824,0	MHz	55,0	64,0	—	dB
		824,0 ... 849,0	MHz	33,0	50,0	—	dB
		915,0 ... 1000,0	MHz	25,0	31,0	—	dB
		1000,0 ... 1610,0	MHz	55,0	63,0	—	dB
		1610,0 ... 3000,0	MHz	50,0	64,0	—	dB
		3000,0 ... 6000,0	MHz	45,0	68,0	—	dB
<b>Amplitude Imbalance</b>				-0,8	—	0,8	dB
<b>Phase Imbalance</b>				-4,5	—	3,5	degree



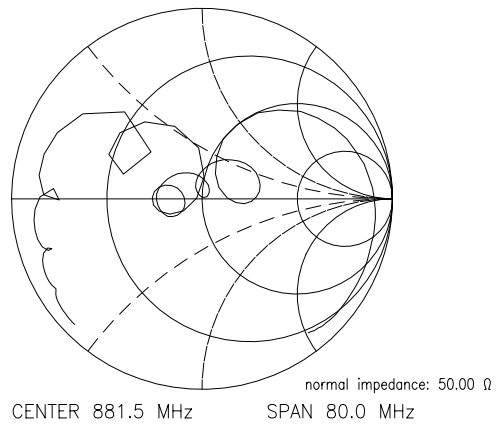
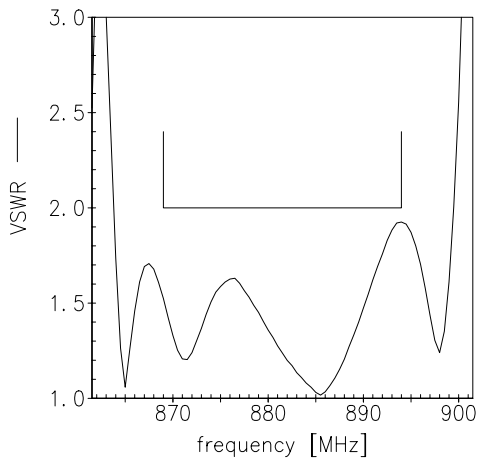
Transfer function



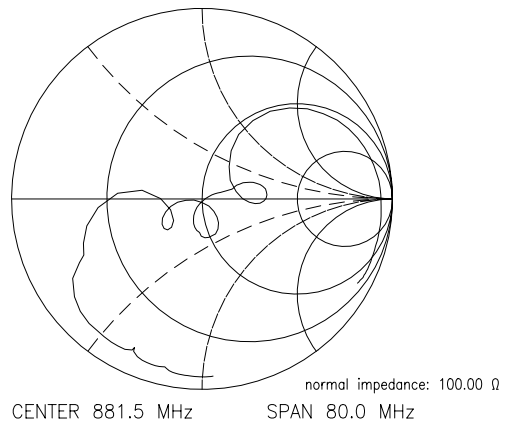
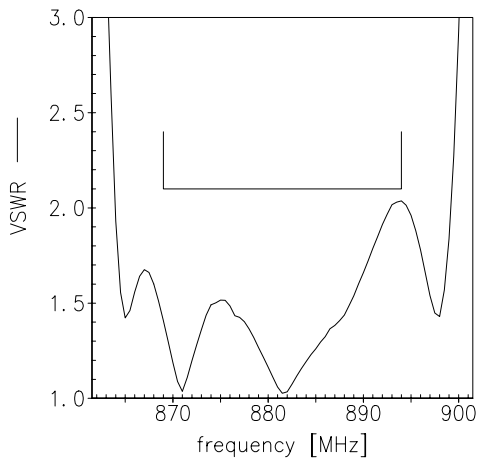
Transfer function (wideband)



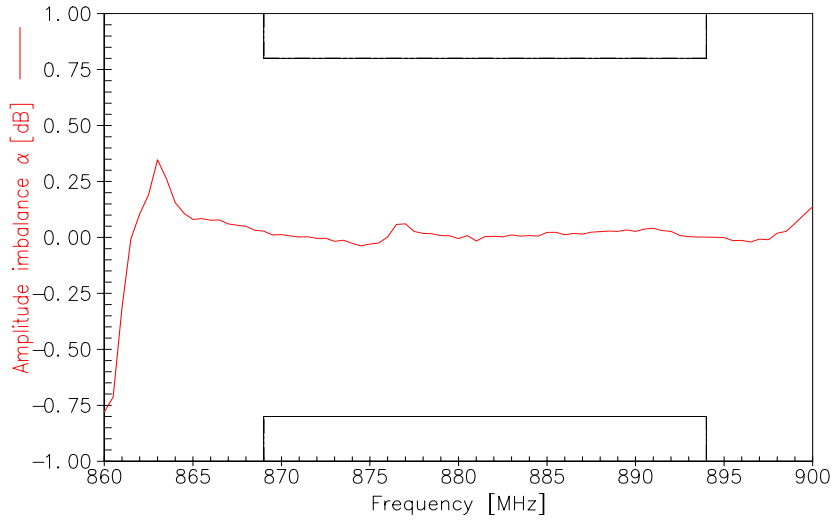
$S_{11}$



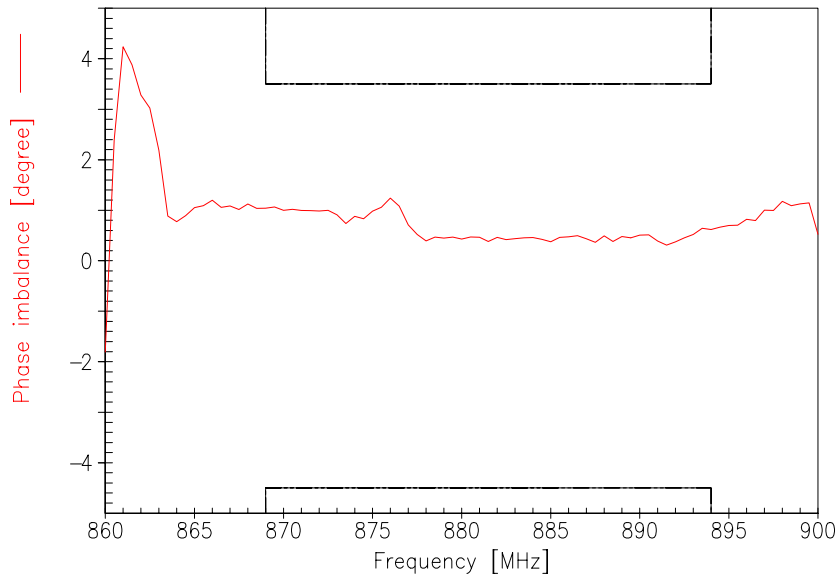
$S_{22}$



**Amplitude imbalance**



**Phase imbalance**





**SAW Components**

**B7731**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

Data Sheet



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