



# SAW Components

Data Sheet B9015





**SAW Components**

**B9015**

**Low-Loss Filter for Mobile Communication**

**897,5 MHz**

**Data Sheet**



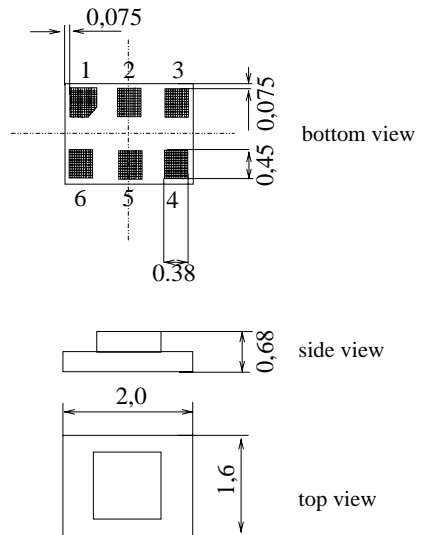
**Chip sized SAW package DCS6Q**

**Features**

- Low-loss RF filter for mobile telephone EGSM systems, transmit path
- Low amplitude ripple
- Usable passband 35MHz
- Impedance transformation from 200Ω to 50Ω
- Suitable for GPRS class 1 to 12
- Ceramic package for **Surface Mounted Technology (SMT)**

**Terminals**

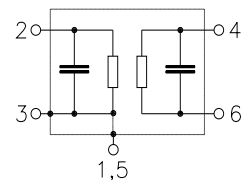
- Ni, gold-plated



Dimensions in mm

**Pin configuration**

- 2 Output, unbalanced
- 4, 6 Inputs, balanced
- 1, 3, 5 To be grounded
- 1, 5 Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B9015	B39901-B9015-E710	C61157-A7-A104	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operating temperature range	$T$	- 10/+ 80	°C	source impedance 200Ω, load impedance 50Ω duty cycle 1 : 8 duty cycle 4 : 8 continuous wave
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	5	V	
Input power max.				
880 ... 915 MHz	$P_{IN}$	15	dBm	
elsewhere		0	dBm	



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**Characteristics**

Operating temperature range:  $T = +25 \pm 5^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 200 \Omega \parallel 82 \text{ nH}$   
 Terminating load impedance:  $Z_L = 50 \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	897,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$				
	880,0 ... 915,0 MHz	—	2,5	3,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	880,0 ... 915,0 MHz	—	0,9	1,5	dB
<b>Input VSWR</b>					
	880,0 ... 915,0 MHz	—	1,8	2,1	
<b>Balanced Output VSWR</b>					
	880,0 ... 915,0 MHz	—	1,7	2,0	
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ )		-10,0	0,0	+10,0	°
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )					
	880,0 ... 915,0 MHz	-1,0	0,0	1,0	dB
<b>Attenuation</b>	$\alpha$				
	0,0 ... 800,0 MHz	55,0	72,0	—	dB
	800,0 ... 850,0 MHz	45,0	56,0	—	dB
	850,0 ... 871,0 MHz	12,0	23,0	—	dB
	935,0 ... 960,0 MHz	20,0	28,0	—	dB
	960,0 ... 1000,0 MHz	34,0	36,0	—	dB
	1000,0 ... 6000,0 MHz	40,0	60,0	—	dB



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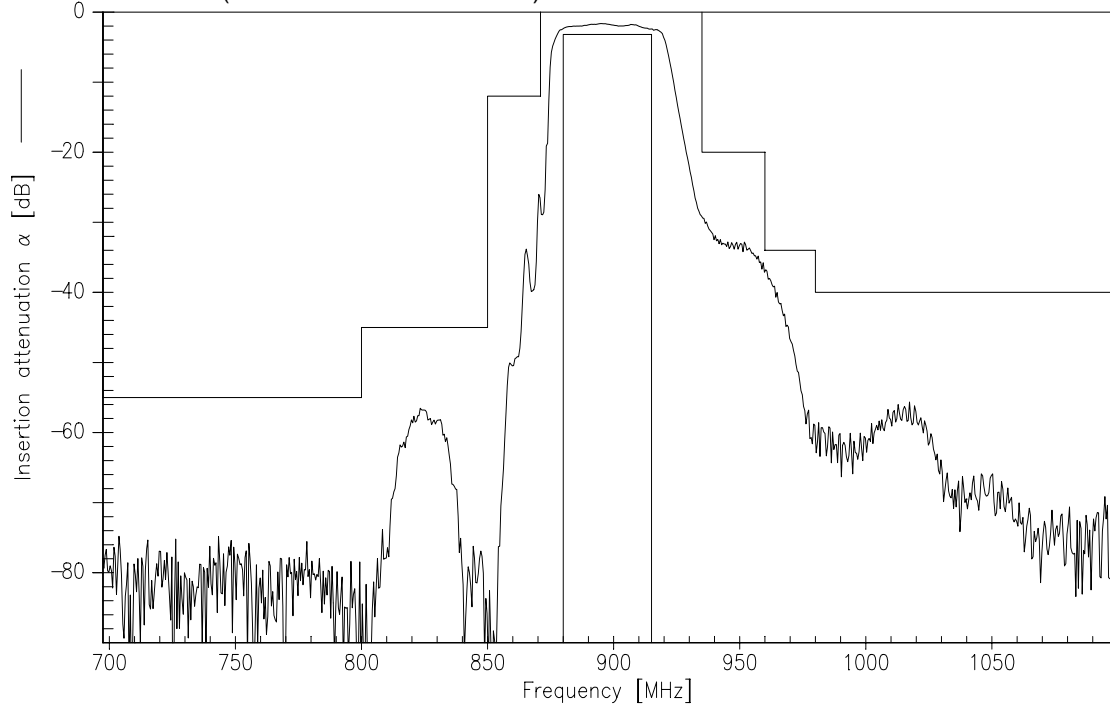
Characteristics

Operating temperature range:  $T = -10$  to  $+80^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 200\ \Omega \parallel 82\ \text{nH}$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

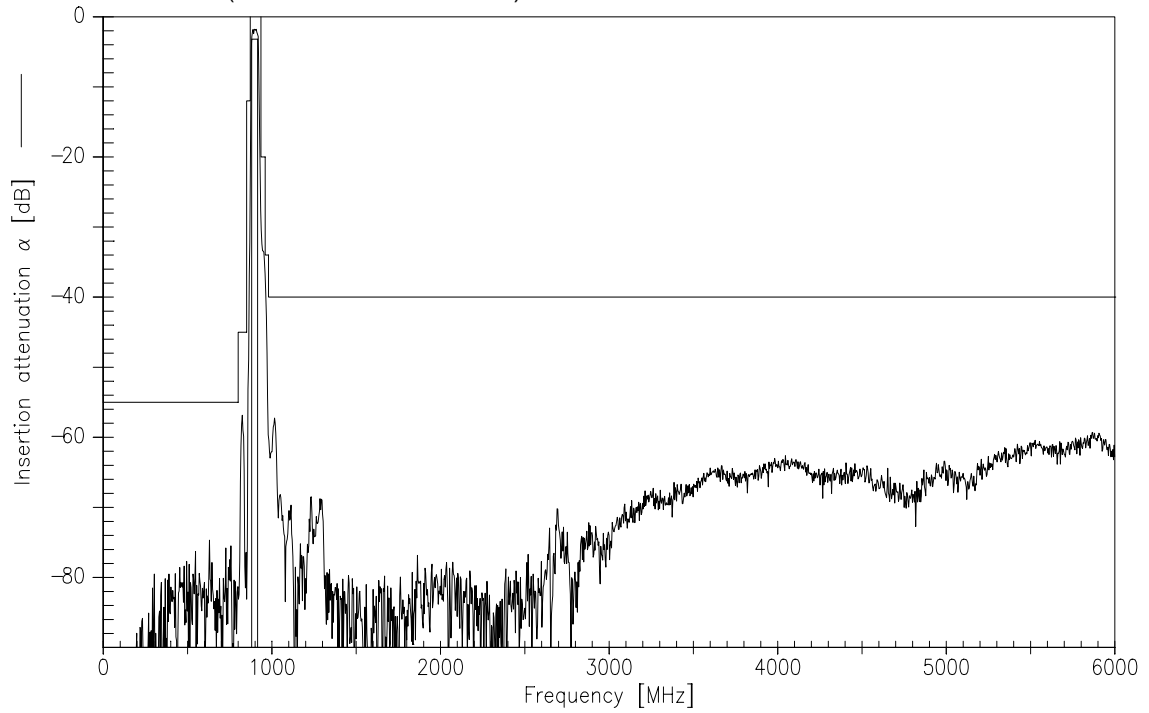
		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	897,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$	—	2,7	3,2	dB
880,0 ... 915,0	MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,0	1,8	dB
880,0 ... 915,0	MHz				
<b>Input VSWR</b>		—	1,8	2,1	
880,0 ... 915,0	MHz				
<b>Output VSWR</b>		—	1,7	2,0	
880,0 ... 915,0	MHz				
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$ )		-10,0	0,0	+10,0	°
880,0 ... 915,0	MHz				
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )		-1,0	0,0	-1,0	dB
880,0 ... 915,0	MHz				
<b>Attenuation</b>	$\alpha$				
0,0 ... 800,0	MHz	55,0	72,0	—	dB
800,0 ... 850,0	MHz	45,0	56,0	—	dB
850,0 ... 871,0	MHz	12,0	23,0	—	dB
935,0 ... 960,0	MHz	20,0	28,0	—	dB
960,0 ... 1000,0	MHz	34,0	36,0	—	dB
1000,0 ... 6000,0	MHz	40,0	60,0	—	dB



Transfer function (Narrowband measurement)



Transfer function (Wideband measurement)





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