



SAW Components

Data Sheet B9015





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B9015

Low-Loss Filter for Mobile Communication

897,5 MHz

Data Sheet



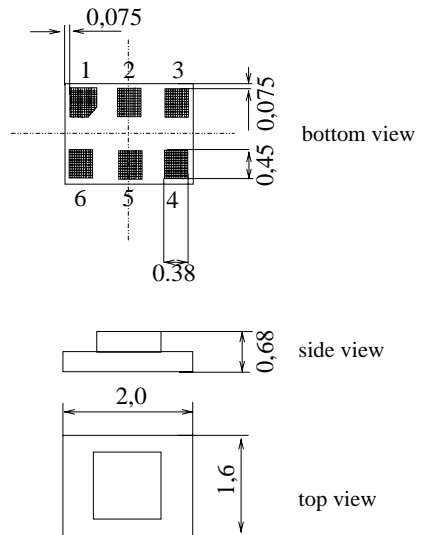
Chip sized SAW package DCS6Q

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

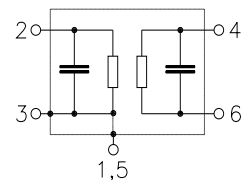
- Ni, gold-plated



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		15	dBm
			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.	
Center frequency	f_c	—	897,5	—	MHz
Maximum insertion attenuation	α_{max}				
	880,0 ... 915,0 MHz	—	2,5	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	880,0 ... 915,0 MHz	—	0,9	1,5	dB
Input VSWR					
	880,0 ... 915,0 MHz	—	1,8	2,1	
Balanced Output VSWR					
	880,0 ... 915,0 MHz	—	1,7	2,0	
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10,0	0,0	+10,0	°
Output amplitude balance ($ S_{31}/S_{21} $)					
	880,0 ... 915,0 MHz	-1,0	0,0	1,0	dB
Attenuation	α				
	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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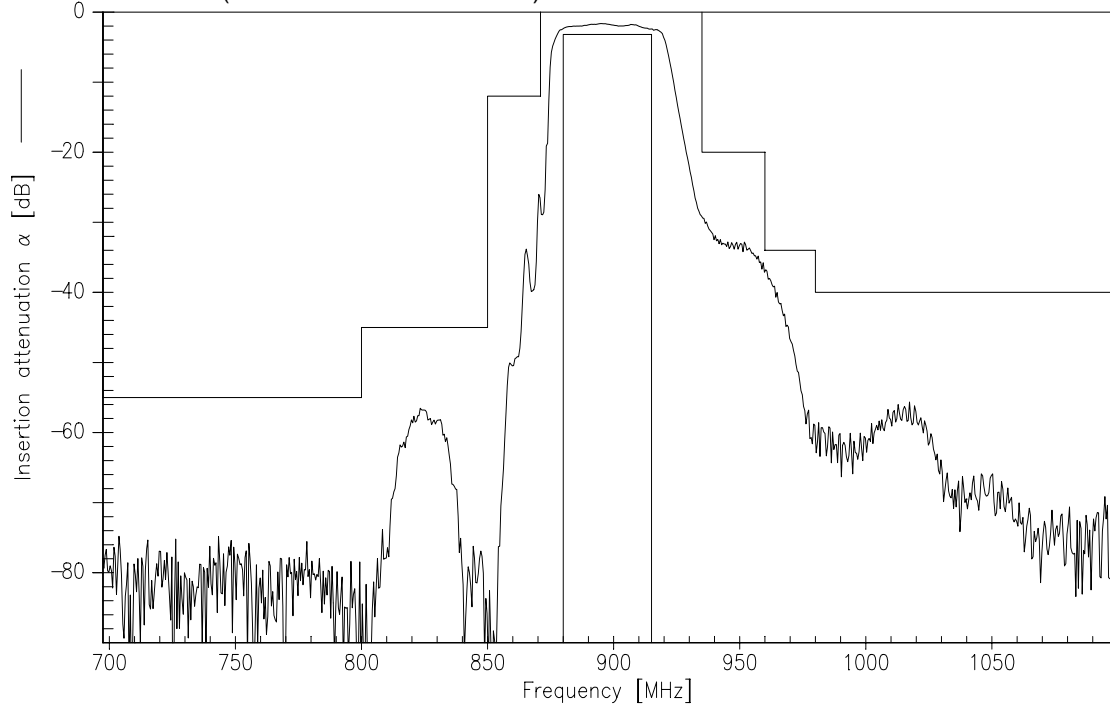
Characteristics

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

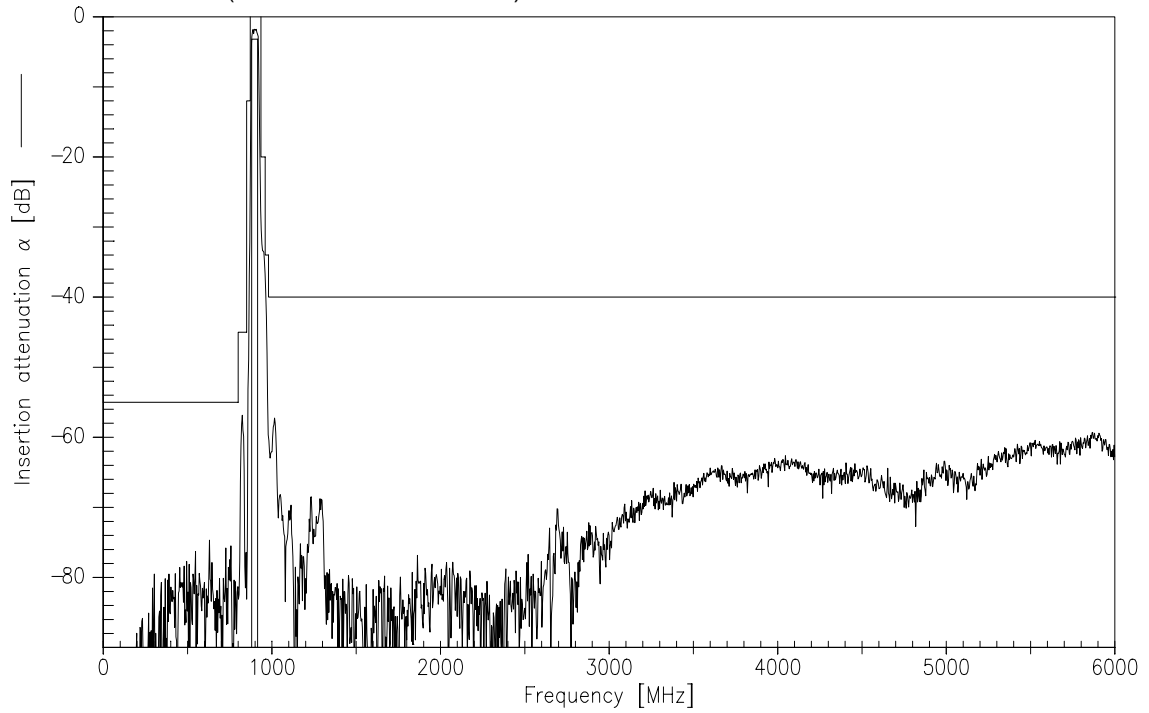
		min.	typ.	max.	
Center frequency	f_c	—	897,5	—	MHz
Maximum insertion attenuation	α_{max}				
	880,0 ... 915,0 MHz	—	2,7	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	880,0 ... 915,0 MHz	—	1,0	1,8	dB
Input VSWR					
	880,0 ... 915,0 MHz	—	1,8	2,1	
Output VSWR					
	880,0 ... 915,0 MHz	—	1,7	2,0	
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)					
	880,0 ... 915,0 MHz	-10,0	0,0	+10,0	$^{\circ}$
Output amplitude balance ($ S_{31}/S_{21} $)					
	880,0 ... 915,0 MHz	-1,0	0,0	-1,0	dB
Attenuation	α				
	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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