



SAW Components

Data Sheet B7603

Data Sheet

An abstract graphic with a dark, textured background. In the foreground, the word "EPCOS" is rendered in large, glowing, 3D letters that appear to be floating or emerging from the background. Behind the letters, there is a faint, stylized globe showing the outlines of continents. A large, stylized, glowing wave or ribbon-like shape curves around the globe and the letters, adding a dynamic feel to the composition.



SAW Components

B7603

Low-Loss Filter for Mobile Communication

897,5 MHz

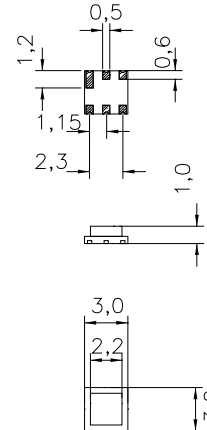
Data Sheet



Chip sized SAW package

Features

- Low-loss RF filter for mobile telephone EGSM system, transmit path
- Low amplitude ripple
- Usable passband 35 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for Surface Mounted Technology (SMT)



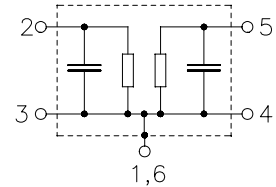
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,027g

Pin configuration

2	Input
3	Input - ground
5	Output
4	Output - ground
1,6	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B7603	B39901-B7603-A210	C61157-A7-A61	F61074-V8083-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 80	$^{\circ}\text{C}$	source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8 continuous wave
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Input power max. 880...915 MHz	P_{IN}	10	dBm	
elsewhere		5	dBm	



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Characteristics

Operating temperature range: $T = 25 \pm 2 \text{ }^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50 \text{ } \Omega$

Terminating load impedance: $Z_L = 50 \text{ } \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	897,50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	880,0 ... 915,0 MHz		—	2,6	2,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	880,0 ... 915,0 MHz		—	1,3	1,4	dB
Input VSWR						
	880,0 ... 915,0 MHz		—	2,0	2,2	
Output VSWR						
	880,0 ... 915,0 MHz		—	2,0	2,2	
Attenuation	α					
	0,0 ... 840,0 MHz		17	18	—	dB
	840,0 ... 860,0 MHz		17	20	—	dB
	860,0 ... 870,0 MHz		10	25	—	dB
	925,0 ... 935,0 MHz		4,5	8	—	dB
	935,0 ... 1850,0 MHz		20	21	—	dB
	1850,0 ... 3660,0 MHz		7	16	—	dB



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Characteristics

Operating temperature range: $T = +10$ to $+60^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50\ \Omega$

Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	897,50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	2,7	2,8	dB
	880,0 ... 915,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,4	1,5	dB
	880,0 ... 915,0 MHz				
Input VSWR		—	2,0	2,2	
	880,0 ... 915,0 MHz				
Output VSWR		—	2,0	2,2	
	880,0 ... 915,0 MHz				
Attenuation	α				
	0,0 ... 840,0 MHz	17	18	—	dB
	840,0 ... 860,0 MHz	17	20	—	dB
	860,0 ... 870,0 MHz	10	19	—	dB
	925,0 ... 935,0 MHz	4	7	—	dB
	935,0 ... 1850,0 MHz	20	21	—	dB
	1850,0 ... 3660,0 MHz	7	16	—	dB



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Characteristics

Operating temperature range: $T = -20$ to $+70^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50\ \Omega$

Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	897,50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	880,0 ... 915,0 MHz		—	2,7	3,1	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	880,0 ... 915,0 MHz		—	1,4	1,8	dB
Input VSWR						
	880,0 ... 915,0 MHz		—	2,0	2,2	
Output VSWR						
	880,0 ... 915,0 MHz		—	2,0	2,2	
Attenuation	α					
	0,0 ... 840,0 MHz		17	18	—	dB
	840,0 ... 860,0 MHz		17	19	—	dB
	860,0 ... 870,0 MHz		10	20	—	dB
	925,0 ... 935,0 MHz		3	5	—	dB
	935,0 ... 1850,0 MHz		20	21	—	dB
	1850,0 ... 3660,0 MHz		7	16	—	dB



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Low-Loss Filter for Mobile Communication

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Characteristics

Operating temperature range: $T = -10$ to $+80^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50\ \Omega$

Terminating load impedance: $Z_L = 50\ \Omega$

				min.	typ.	max.	
Center frequency	f_c			—	897,50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$						
		880,0 ... 915,0	MHz	—	2,7	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$						
		880,0 ... 915,0	MHz	—	1,4	1,7	dB
Input VSWR							
		880,0 ... 915,0	MHz	—	2,0	2,2	
Output VSWR							
		880,0 ... 915,0	MHz	—	2,0	2,2	
Attenuation	α						
		0,0 ... 840,0	MHz	17	18	—	dB
		840,0 ... 860,0	MHz	17	20	—	dB
		860,0 ... 870,0	MHz	9	18	—	dB
		925,0 ... 935,0	MHz	4	6	—	dB
		935,0 ... 1850,0	MHz	20	21	—	dB
		1850,0 ... 3660,0	MHz	7	16	—	dB



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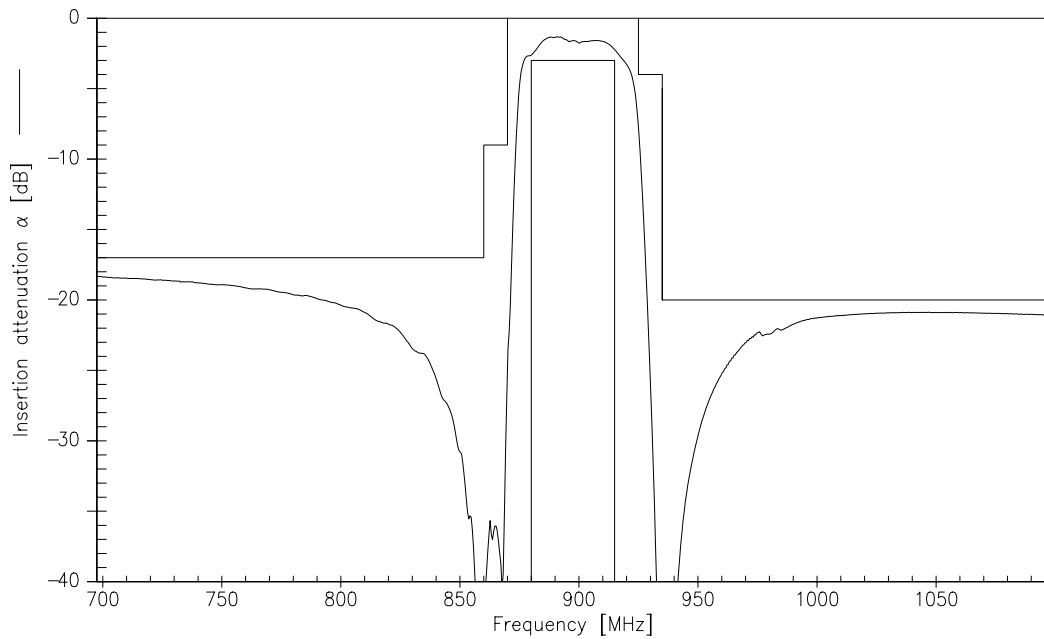
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897,5 MHz

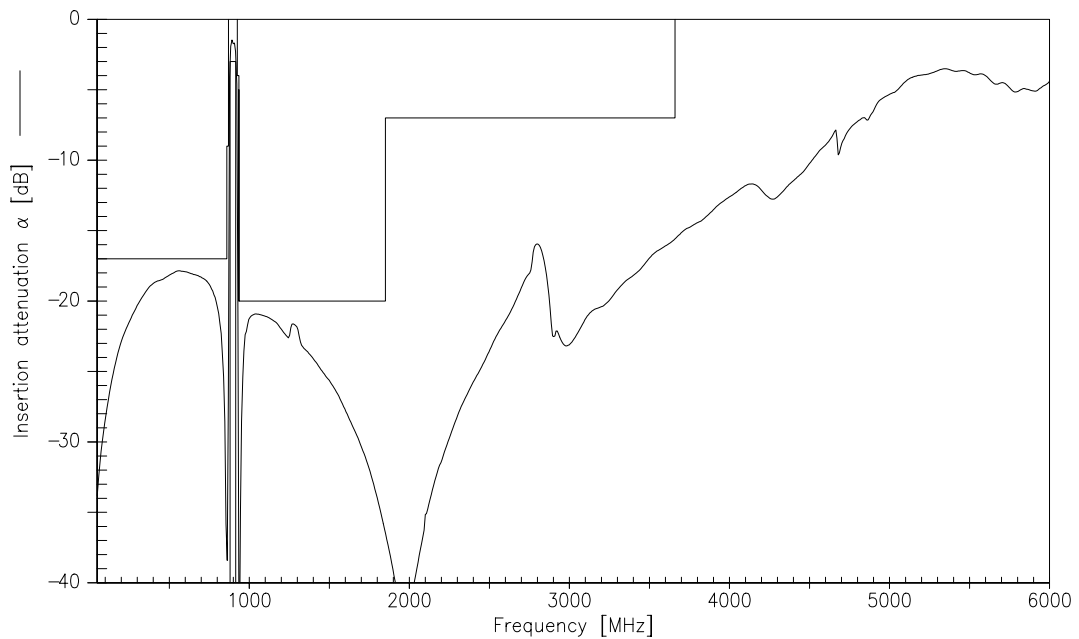
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Transfer function (measurement)



Transfer function (wideband; measurement)





SAW Components	B7603
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Data Sheet	SMD

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