



SAW Components

Datasheet B9003

Data Sheet

A large, stylized, 3D-rendered "EPCOS" logo is centered on a dark, textured background. The logo is white with a slight glow. The background also features the same repeating watermark as the top section of the page.



SAW Components

B9003

Low-Loss Filter for Mobile Communication

836,5 MHz

Datasheet



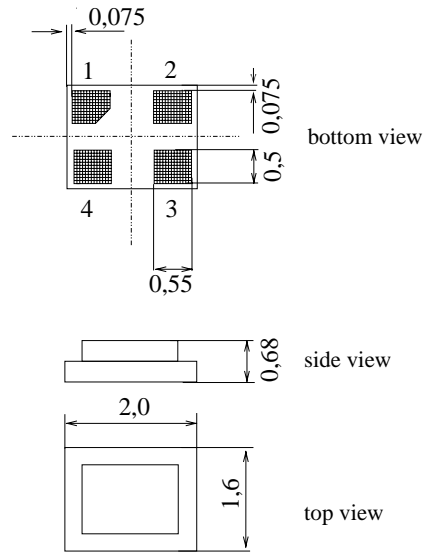
Chip sized SAW package DCS4G

Features

- Low-loss RF filter for Cell mobile telephone system, transmit path
- High counterband suppression
- Usable passband 25 MHz
- Unbalanced/unbalanced operation
- Package size: 1.6 mm x 2.0 mm (4 pin, diagonal pinning)

Terminals

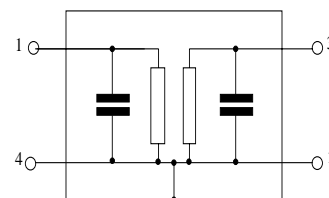
- Ni, gold-plated



Dimensions in mm, approx weight 0,007g

Pin configuration

- 1 Input
- 3 Output
- 2,4 Ground



Type	Ordering code	Marking and Package according to	Packing according to
B9003	B39841-B9003-E910	C61157-A7-A105	F61074-V8152-Z000

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}	3	V	
ESD voltage	V_{ESD}^*	100*	V	machine model, 10 pulses
Source Power max. 824 - 849 MHz	P_{IN}	16	dBm	source impedance 50 Ω
elsewhere	P_{IN}	10	dBm	source impedance 50 Ω

* acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{\max}				
824,0 ... 849,0 MHz		—	1,9	2,1	dB
Ripple	p-p				
824,0 ... 849,0 MHz		—	0,9	1,1	dB
Input return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	12	---	dB
Output return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	12	---	dB
Attenuation	α				
0,0 ... 779,0 MHz		33	36	—	dB
779,0 ... 804,0 MHz		38	43	—	dB
869,0 ... 894,0 MHz		40	43	—	dB
894,0 ... 1580,0 MHz		33	37	—	dB
1580,0 ... 1698,0 MHz		33	44	—	dB
1698,0 ... 2547,0 MHz		30	37	—	dB



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{max}				
824,0 ... 849,0 MHz		—	2,2	2,5	dB
Ripple	p-p				
824,0 ... 849,0 MHz		—	1,1	1,5	dB
Input return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	11,5	---	dB
Output return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	11,5	---	dB
Attenuation	α				
0,0 ... 779,0 MHz		33	36	—	dB
779,0 ... 804,0 MHz		38	43	—	dB
869,0 ... 894,0 MHz		40	43	—	dB
894,0 ... 1580,0 MHz		33	37	—	dB
1580,0 ... 1698,0 MHz		33	44	—	dB
1698,0 ... 2547,0 MHz		30	37	—	dB



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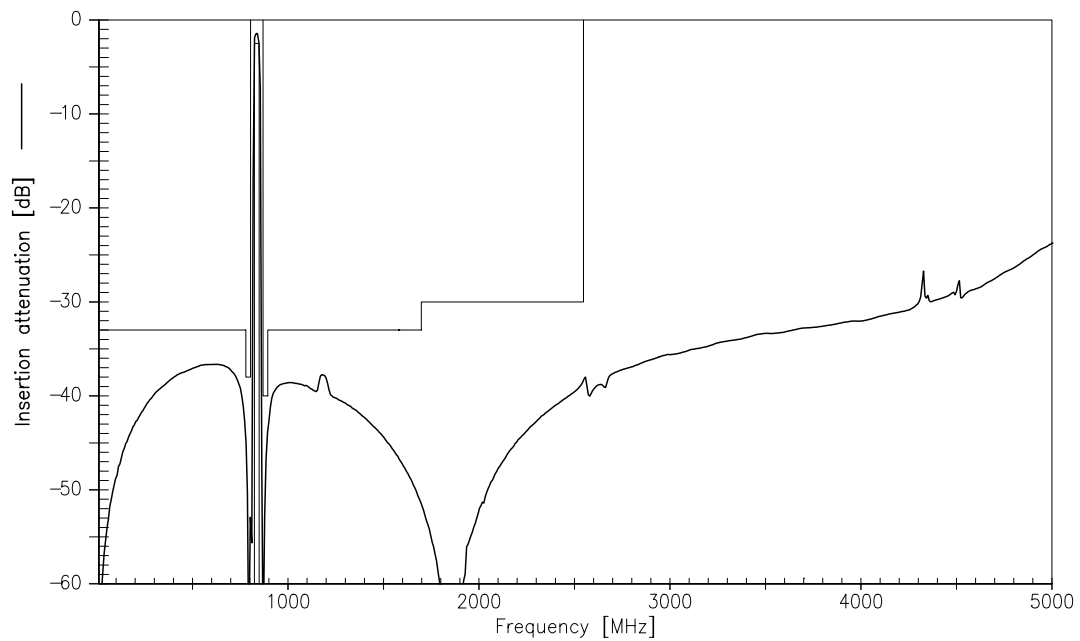
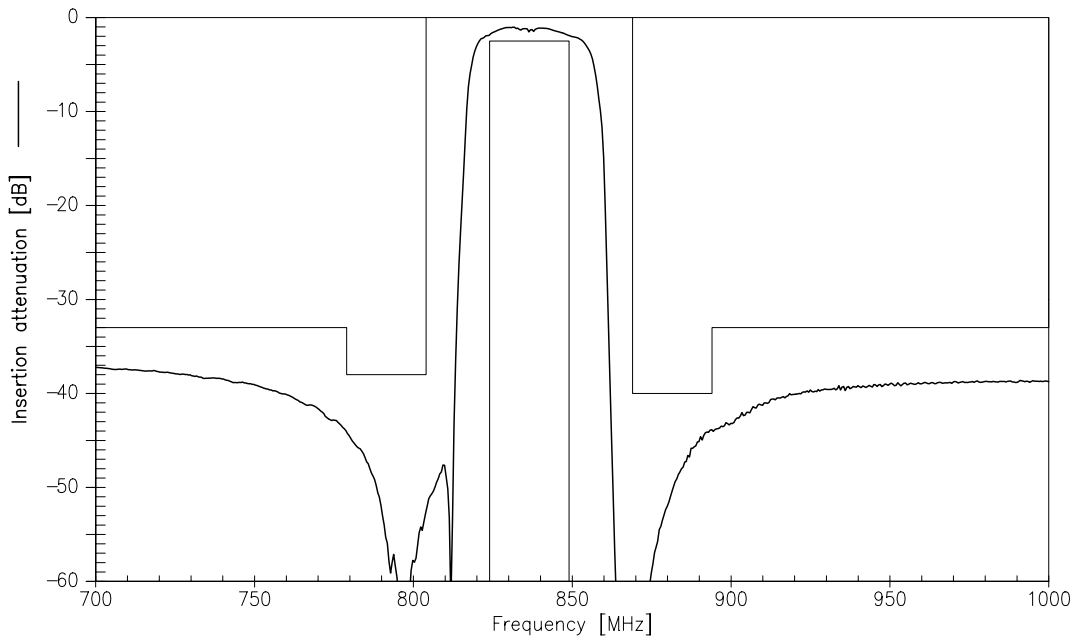
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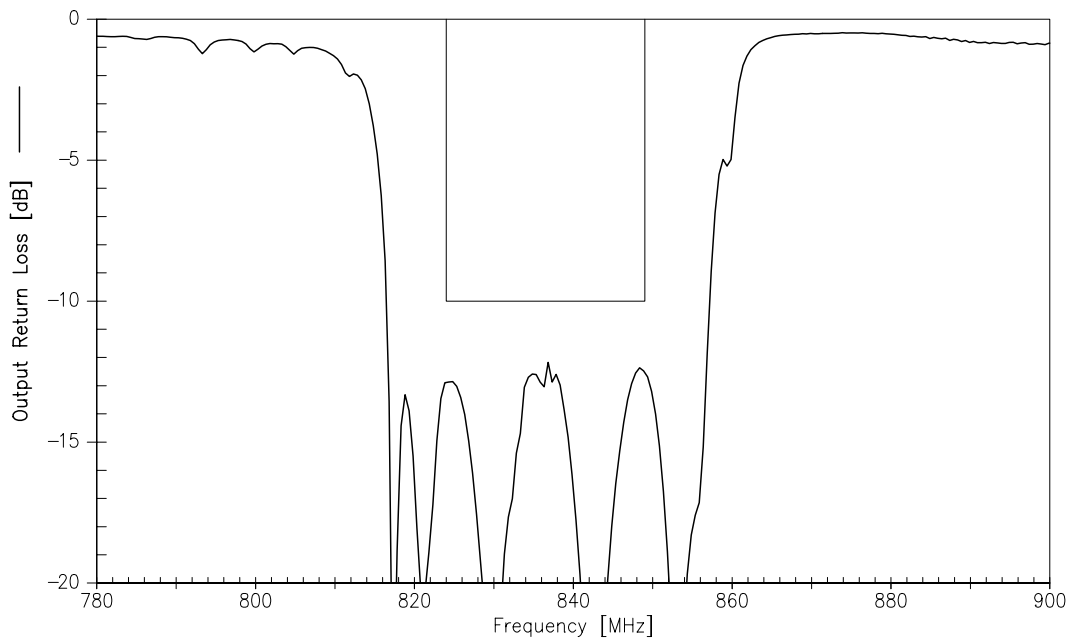
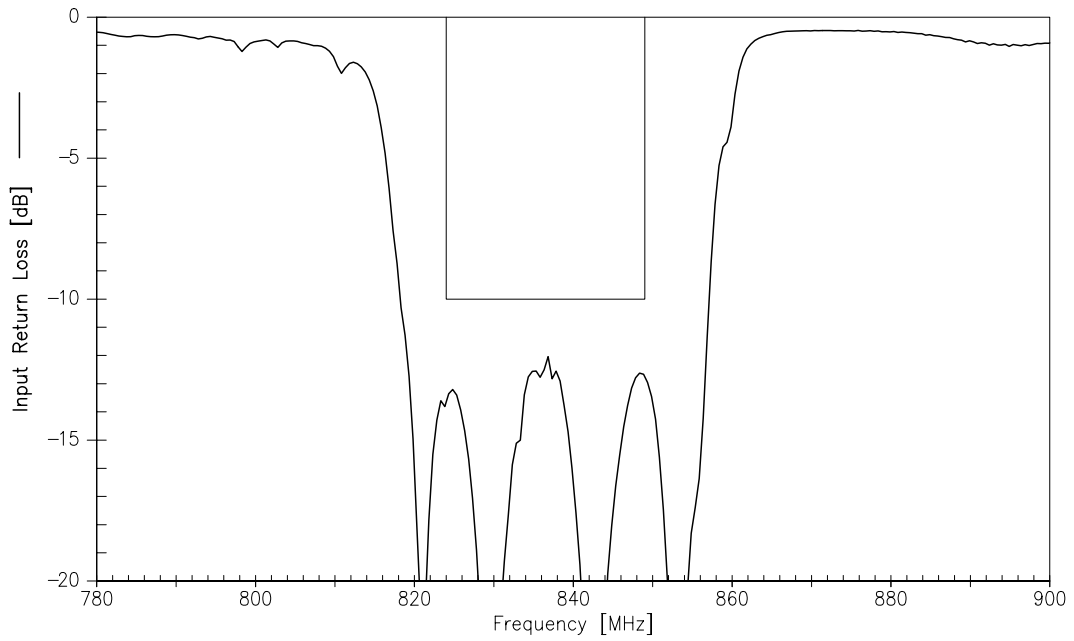


Transfer function





Input and Output Return Loss





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

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