



SAW Components

Datasheet B9003

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the company's logo. The background is dark and textured, with a faint map of the world visible.



SAW Components

B9003

Low-Loss Filter for Mobile Communication

836,5 MHz

Datasheet



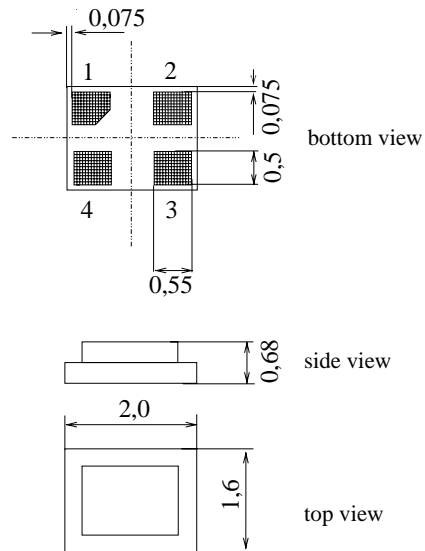
Chip sized SAW package DCS4G

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

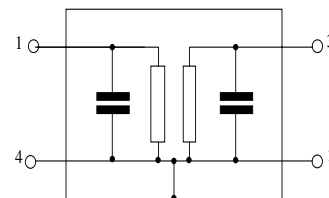
- Ni, gold-plated



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	machine model, 10 pulses
Storage temperature range	T_{stg}	- 40 /+ 85	°C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}^*	100*	V	
Source Power max.				source impedance 50 Ω
824 - 849 MHz	P_{IN}	16	dBm	
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: $T = +25\text{ °C}$
 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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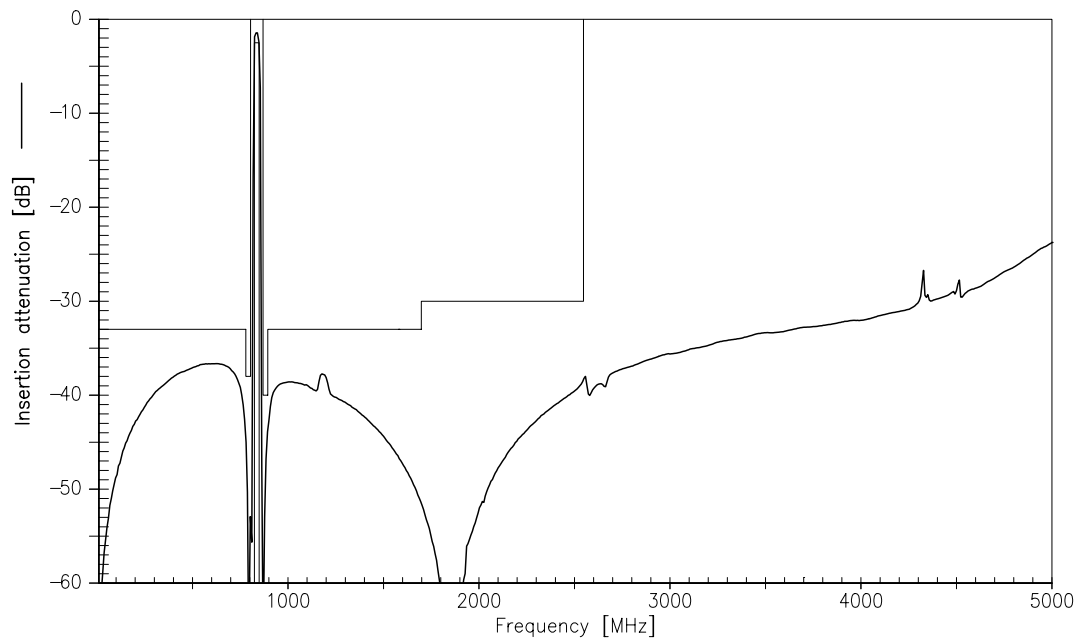
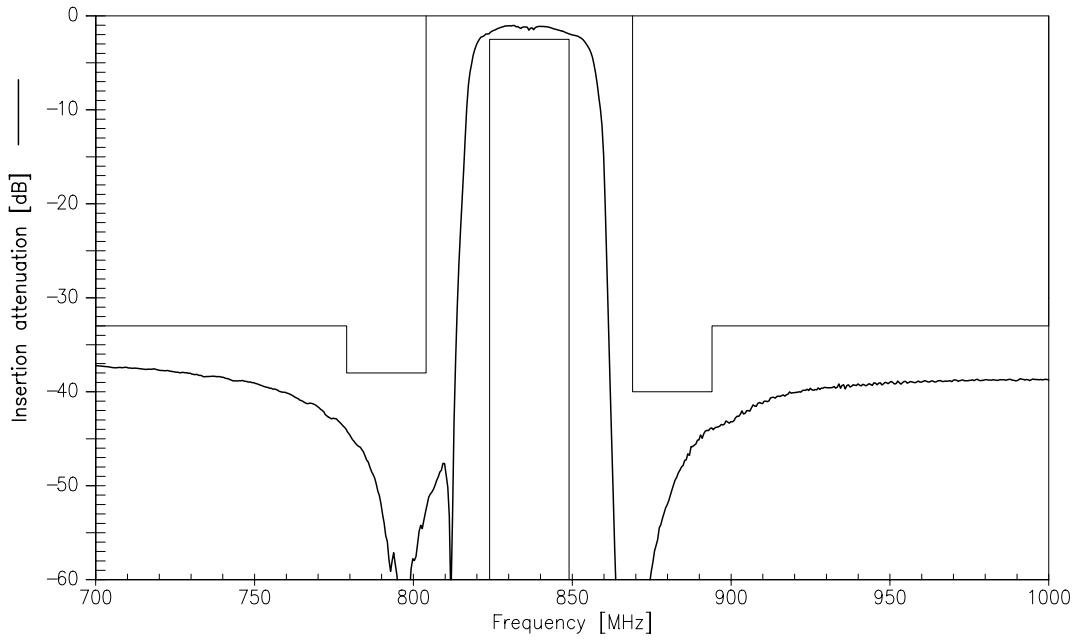
Characteristics

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

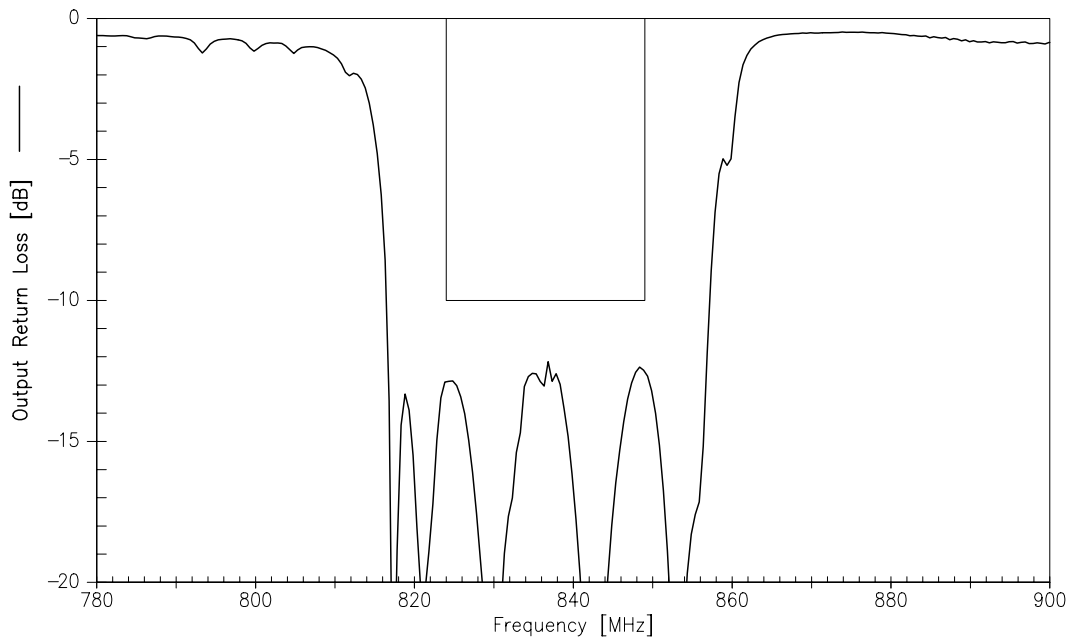
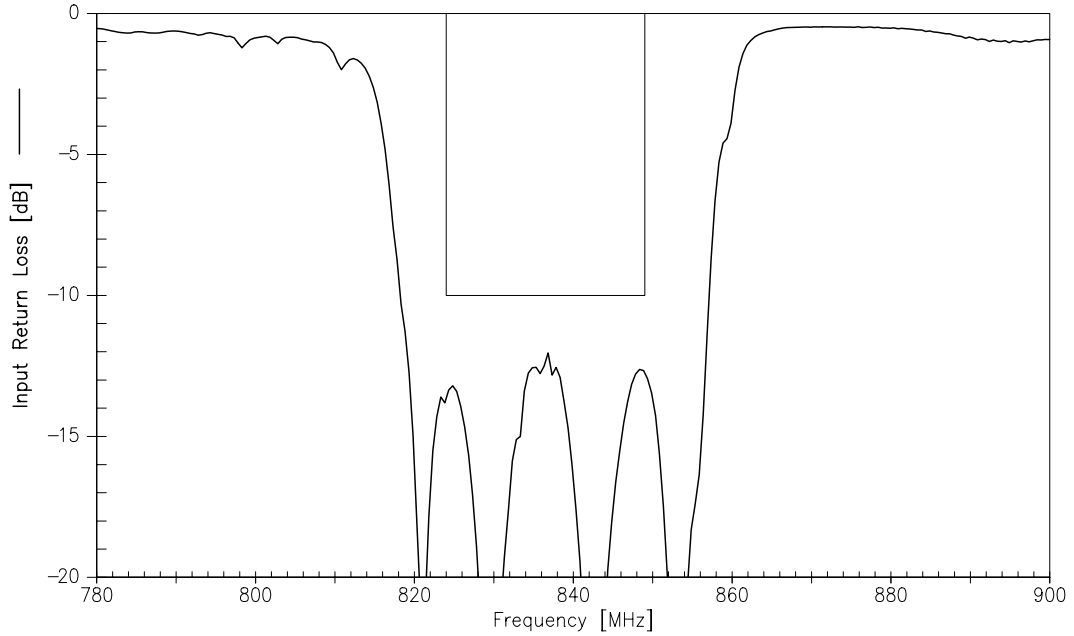


Transfer function





Input and Output Return Loss





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