



SAW Components

Data Sheet B9022

Data Sheet

An abstract, grayscale graphic featuring a stylized, three-dimensional representation of the EPCOS logo. The letters "EPCOS" are rendered in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a globe or a stylized letter 'S'. The background is dark and textured, with light reflecting off the surfaces of the logo.



SAW Components

B9022

Low-Loss Filter for Mobile Communication

881,5 MHz

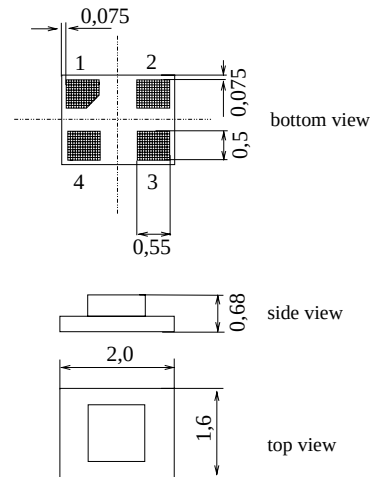
Data Sheet



Features

- Low-loss RF filter for mobile telephone Cellular systems, receive path
- Usable passband 25 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Suitable for GPRS Class 1 to 12
- Ceramic Package for Surface Mounted Technology (SMT)

Chip sized SAW package DCS4F



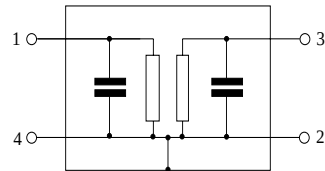
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,007 g

Pin configuration

- | | |
|-----|--------------------|
| 1 | Input, unbalanced |
| 3 | Output, unbalanced |
| 2,4 | Case ground |



Type	Ordering code	Marking and Package according to	Packing according to
B9022	B39881-B9022-E610	C61157-A7-A113	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	$^{\circ}\text{C}$	machine model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}^*	100*	V	
Input power at	P_{IN}	15	dBm	
GSM850, GSM900 GSM1800 and GSM1900 Tx bands				

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



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Characteristics

Operating temperature: $T = +25\text{ °C}$

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

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

				min.	typ.	max.	
Center frequency	f_C			—	881,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$						
	869,0 ... 894,0	MHz		—	1,9	2,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$						
	869,0 ... 894,0	MHz		—	0,6	0,7	dB
Input VSWR							
	869,0 ... 894,0	MHz		—	1,7	2,0	
Output VSWR							
	869,0 ... 894,0	MHz		—	1,7	2,0	
Attenuation	α						
	0,0 ... 780,0	MHz		50	54	—	dB
	780,0 ... 840,0	MHz		42	50	—	dB
	840,0 ... 849,0	MHz		39	39	—	dB
	914,0 ... 950,0	MHz		28	30	—	dB
	950,0 ... 1500,0	MHz		45	52	—	dB
	1500,0 ... 2200,0	MHz		40	45	—	dB
	2200,0 ... 3000,0	MHz		33	38	—	dB
	3000,0 ... 4000,0	MHz		28	32	—	dB
	4000,0 ... 6000,0	MHz		15	21	—	dB



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Characteristics

Operating temperature: $T = -30 \dots +85 \text{ }^{\circ}\text{C}$

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

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

			min.	typ.	max.	
Center frequency	f_C		—	881,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	869,0 ... 894,0 MHz		—	2,0	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	869,0 ... 894,0 MHz		—	0,7	1,0	dB
Input VSWR						
	869,0 ... 894,0 MHz		—	1,7	2,0	
Output VSWR						
	869,0 ... 894,0 MHz		—	1,7	2,0	
Attenuation	α					
	0,0 ... 780,0 MHz		50	54	—	dB
	780,0 ... 840,0 MHz		42	50	—	dB
	840,0 ... 849,0 MHz		35	39	—	dB
	914,0 ... 950,0 MHz		25	28	—	dB
	950,0 ... 1500,0 MHz		45	52	—	dB
	1500,0 ... 2200,0 MHz		40	45	—	dB
	2200,0 ... 3000,0 MHz		33	38	—	dB
	3000,0 ... 4000,0 MHz		28	32	—	dB
	4000,0 ... 6000,0 MHz		15	21	—	dB



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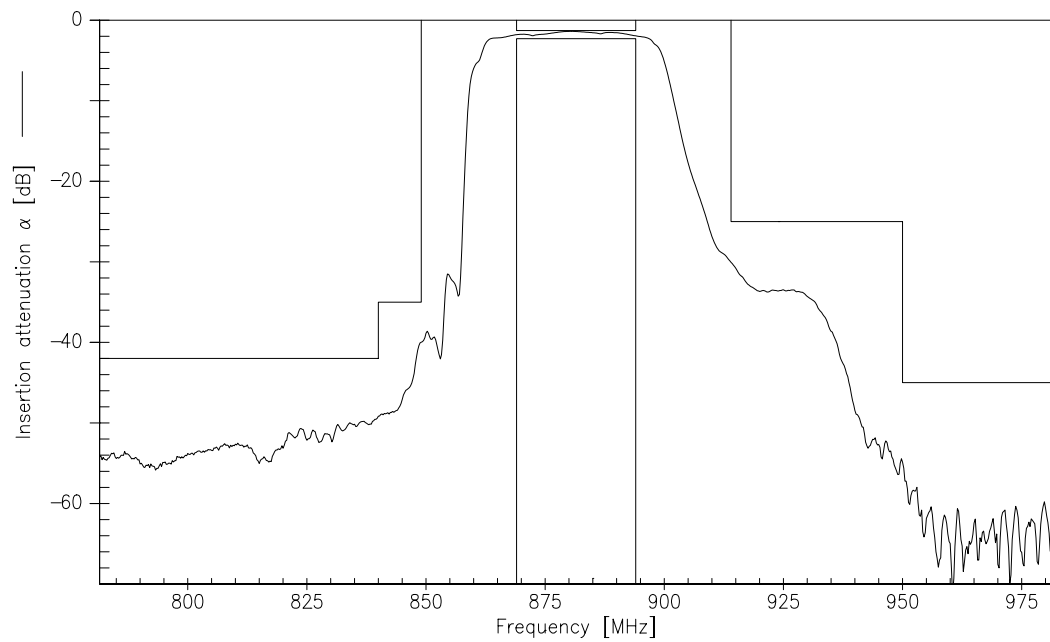
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881,5 MHz

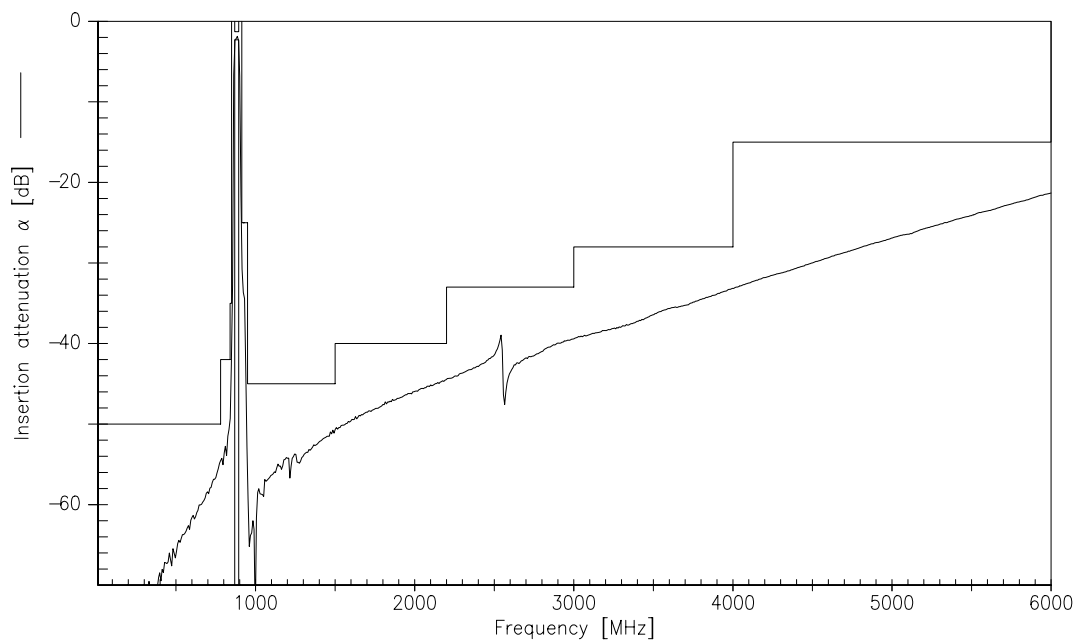
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Transfer function (narrow band)



Transfer function (wideband)





SAW Components	B9022
Low-Loss Filter for Mobile Communication	881,5 MHz
Data Sheet	SMD

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