



SAW Components

Data Sheet B7613

Data Sheet

An abstract, grayscale graphic featuring the word "EPCOS" in large, bold, white letters. The letters are partially obscured by a series of overlapping, curved, metallic-looking bands that create a sense of depth and movement. The background is dark and textured.



SAW Components

B7613

Low-Loss Filter for Mobile Communication

942,50 MHz

Data Sheet



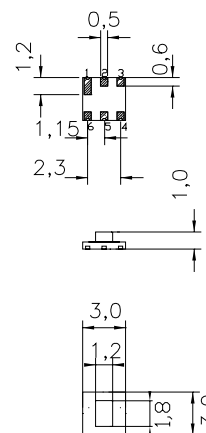
Chip sized SAW package

Features

- Low-loss RF filter for mobile telephone EGSM systems, receive 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

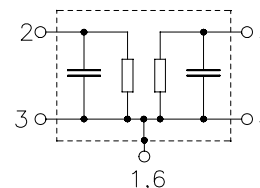
- Ni, gold-plated



Dimensions in mm, approx. weight 0,027g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B7613	B39941-B7613-B910	C61157-A7-A79	F61074-V8110-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 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}	3	V	
Input power max.	P_{IN}	5	dBm	
890...915 MHz		5	dBm	
1710...1785 Mhz		5	dBm	
elsewhere		0	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	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,1	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,3	2,0	dB
Input VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Output VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Attenuation	α				
0,0 ... 800,0 MHz		55	58	—	dB
800,0 ... 905,0 MHz		45	48	—	dB
905,0 ... 915,0 MHz		23	40	—	dB
980,0 ... 1005,0 MHz		23	29	—	dB
1005,0 ... 1025,0 MHz		40	48	—	dB
1025,0 ... 1760,0 MHz		45	53	—	dB
1760,0 ... 3120,0 MHz		27	30	—	dB
3120,0 ... 3800,0 MHz		18	20	—	dB
3800,0 ... 4000,0 MHz		15	17	—	dB
4000,0 ... 6000,0 MHz		—	7	—	dB
Input reflection coefficient @ 1842,5 Mhz					
Phase		-150	-140	-130	°



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,3	4,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,5	2,5	dB
Input VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Output VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Attenuation	α				
0,0 ... 800,0 MHz		55	58	—	dB
800,0 ... 905,0 MHz		45	48	—	dB
905,0 ... 915,0 MHz		18	28	—	dB
980,0 ... 1005,0 MHz		23	27	—	dB
1005,0 ... 1025,0 MHz		40	48	—	dB
1025,0 ... 1760,0 MHz		45	53	—	dB
1760,0 ... 3120,0 MHz		27	30	—	dB
3120,0 ... 3800,0 MHz		18	20	—	dB
3800,0 ... 4000,0 MHz		15	17	—	dB
4000,0 ... 6000,0 MHz		—	7	—	dB
Input reflection coefficient @1842,5 MHz					
Phase		-150	-140	-130	°



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Characteristics

Operating temperature range: $T = -30$ to $+80\text{ }^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50\text{ }\Omega$
Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
	925,0 ... 960,0 MHz	—	3,4	4,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	925,0 ... 960,0 MHz	—	1,6	2,5	dB
Input VSWR					
	925,0 ... 960,0 MHz	—	2,0	2,2	
Output VSWR					
	925,0 ... 960,0 MHz	—	2,0	2,2	
Attenuation	α				
	0,0 ... 800,0 MHz	55	58	—	dB
	800,0 ... 905,0 MHz	45	48	—	dB
	905,0 ... 915,0 MHz	17	28	—	dB
	980,0 ... 1005,0 MHz	23	27	—	dB
	1005,0 ... 1025,0 MHz	40	48	—	dB
	1025,0 ... 1760,0 MHz	45	53	—	dB
	1760,0 ... 3120,0 MHz	27	30	—	dB
	3120,0 ... 3800,0 MHz	18	20	—	dB
	3800,0 ... 4000,0 MHz	15	17	—	dB
	4000,0 ... 6000,0 MHz	—	7	—	dB
Input reflection coefficient @1842,5 MHz					
	Phase	-150	-140	-130	$^{\circ}$



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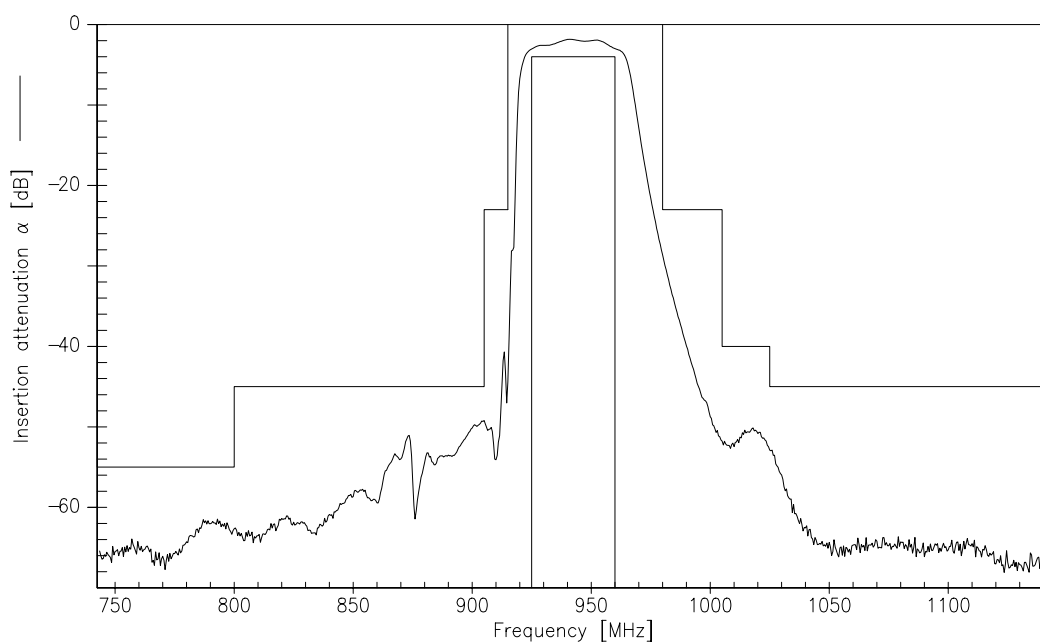
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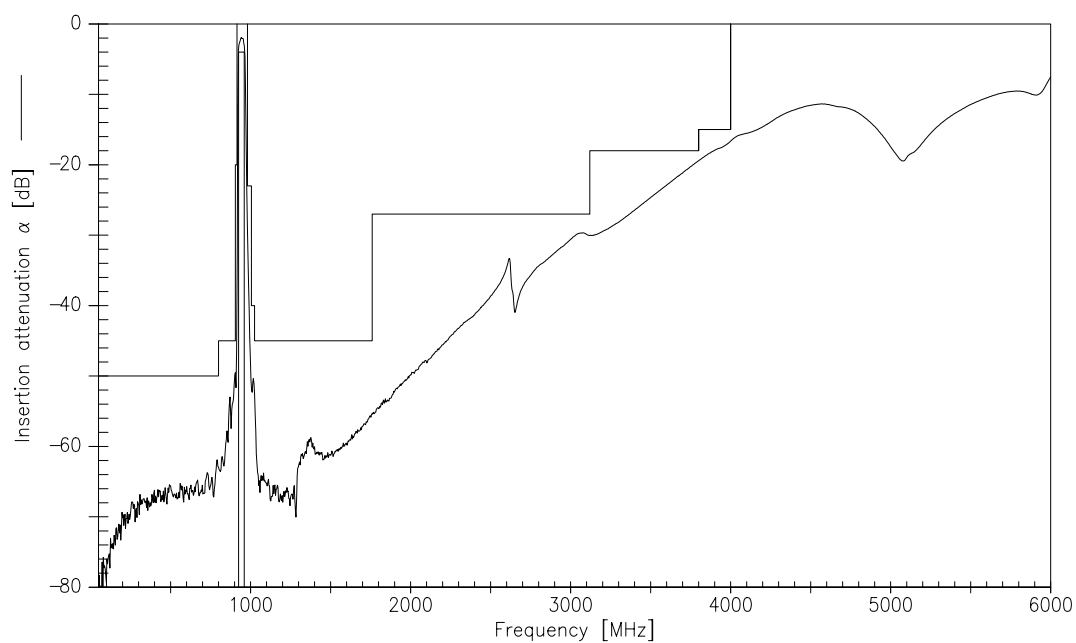
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Transfer function (+25 °C specification)



Transfer function (wideband)





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