EPCOS

SAW Components

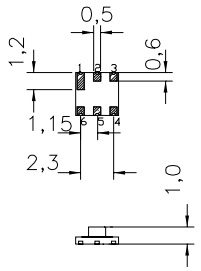
Data Sheet B7613

Data Sheet SMD

Chip sized SAW package

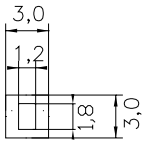
Features

- 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 **S**urface **M**ounted **T**echnology (**SMT**)



Terminals

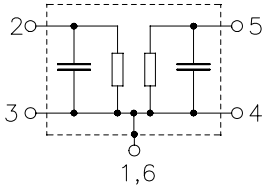
- Ni, gold-plated



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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 30 / + 80	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	3	V	
Input power max.				source and load impedance 50 Ω
890...915 MHz	P_{IN}	5	dBm	peak power of GSM signal,
1710...1785 Mhz		5	dBm	duty cycle 1 : 8
elsewhere		0	dBm	continuous wave

Characteristics

Operating temperature range: T = 25 +- 2 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{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	˚

Characteristics

Operating temperature range: T = -10˚C to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

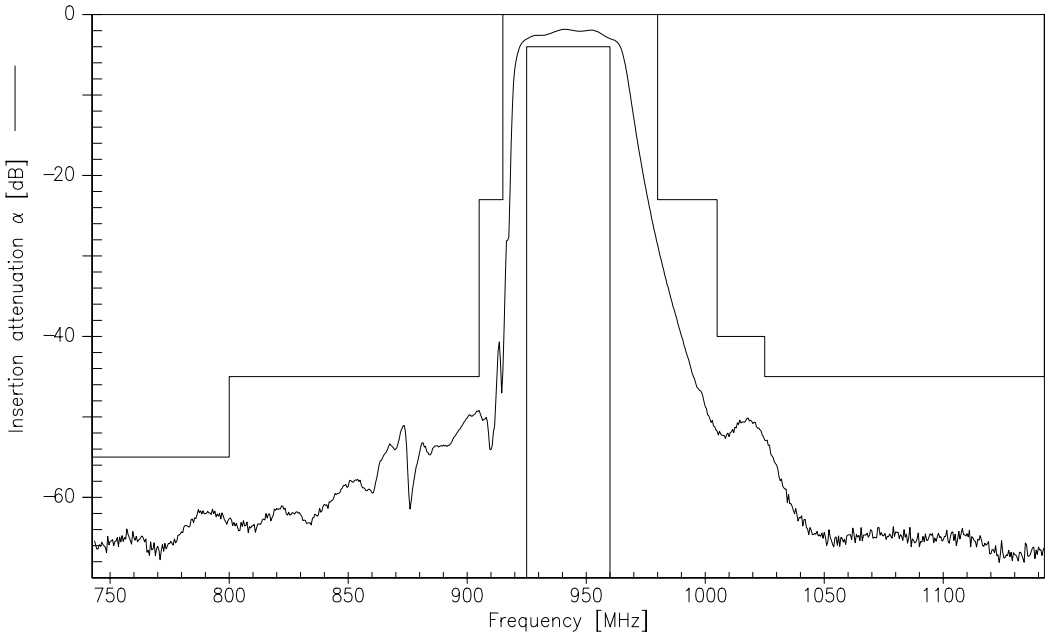
		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}				
925,0 ... 960,0 MHz		—	3,3	4,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,5	2,5	dB
Input VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Output VSWR					
925,0 ... 960,0 MHz		—	2,0	2,2	
Attenuation	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	˚

Characteristics

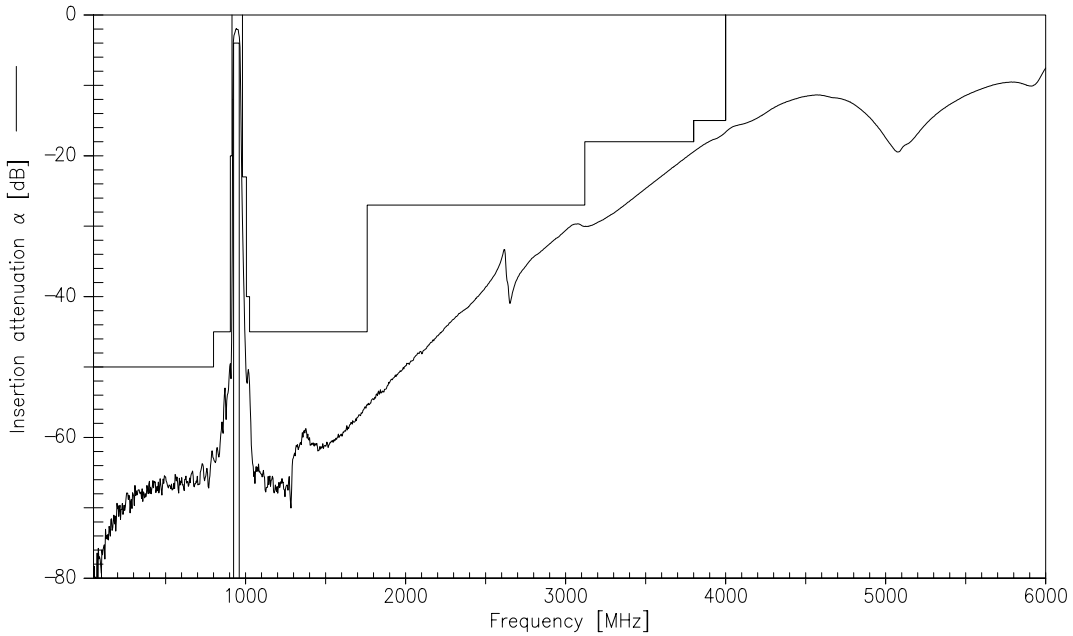
Operating temperature range: T = -30 to + 80 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{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	°

Transfer function (+25 ˚C specification)



Transfer function (wideband)



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