



SAW Components

SAW filter

GSM RF Filter

Series/type: B4125
Ordering code: B39881B4125U410

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Version: 2.1

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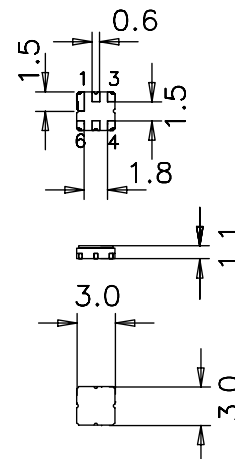
Data sheet

Application

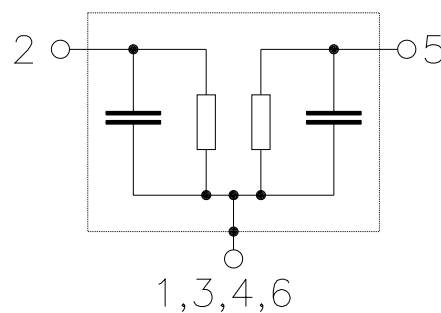
- Low-loss RF filter for AMPS mobile telephone system, receive path
- Low amplitude ripple
- Usable passband of 25 MHz


Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 1**
- Filter surface passivated


Pin configuration

- 2 Input unbalanced
- 5 Output unbalanced
- 1,3,4,6 To be grounded



Data sheet


Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Centre frequency	f_C	—	881.5	—	MHz
Maximum insertion attenuation	α_{\max}	—	2.6	3.0	dB
	869.0 ... 894.0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1.1	1.5	dB
	869.0 ... 894.0 MHz				
VSWR					
Input	869.0 ... 894.0 MHz	—	1.4	1.6	
Output	869.0 ... 894.0 MHz	—	1.4	1.6	
Attenuation	α				
	0.0 ... 824.0 MHz	35.0	50.0	—	dB
	824.0 ... 849.0 MHz	35.0	45.0	—	dB
	970.0 ... 997.0 MHz	35.0	60.0	—	dB
	997.0 ... 1150.0 MHz	40.0	60.0	—	dB
	1150.0 ... 1500.0 MHz	30.0	50.0	—	dB
	1500.0 ... 2000.0 MHz	25.0	38.0	—	dB
	2000.0 ... 6000.0 MHz	20.0	25.0	—	dB

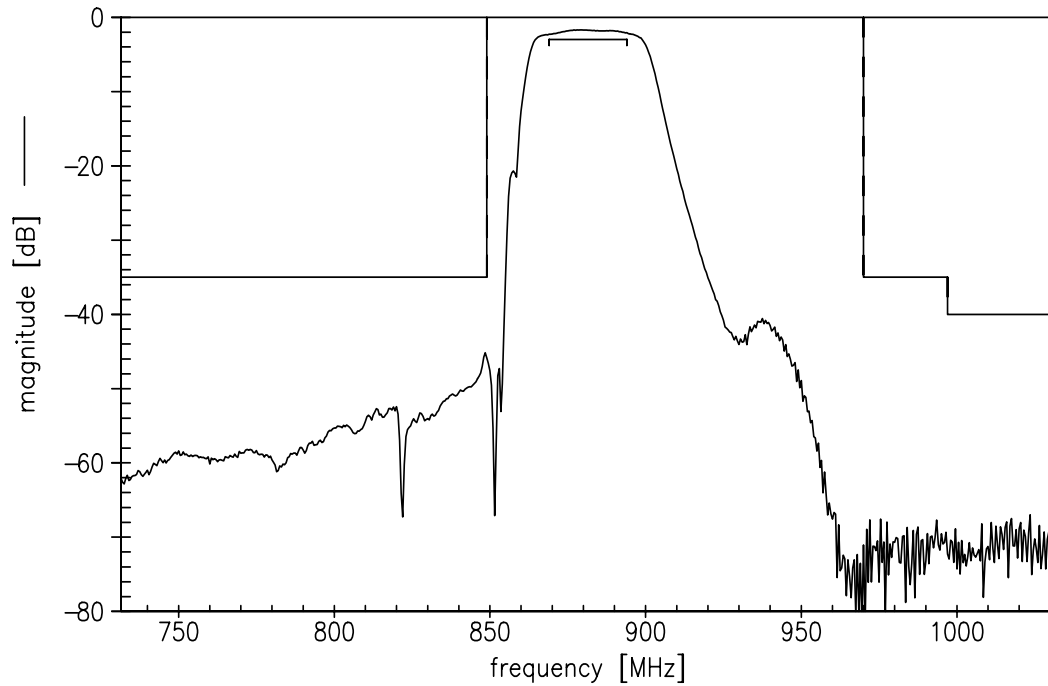

Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 1 pulse
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	
Input power				
869.0 ... 894.0 MHz	P _{IN}	13	dBm	Continuous Wave, 100000hrs, 85°C

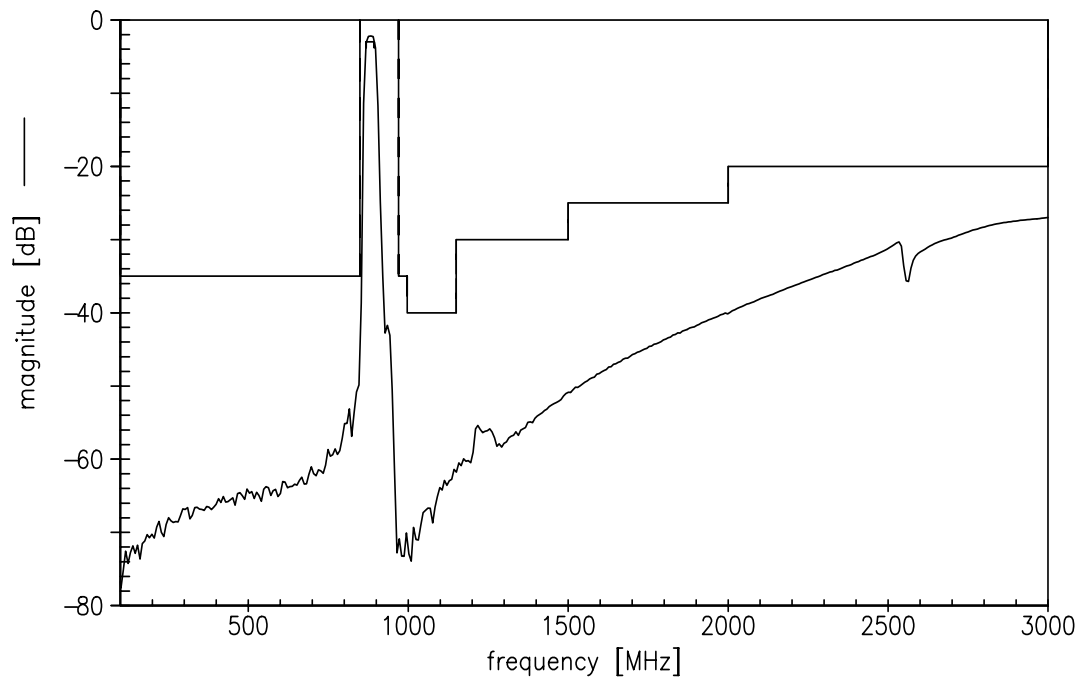
1) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (wideband)

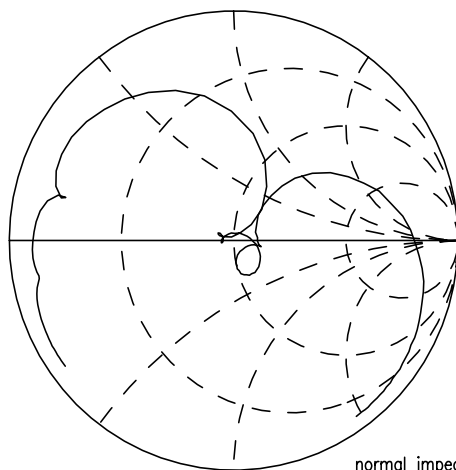


Data sheet

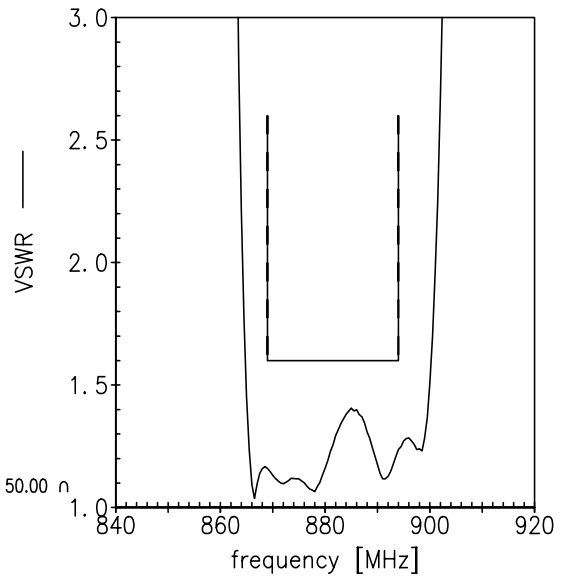


Smith charts

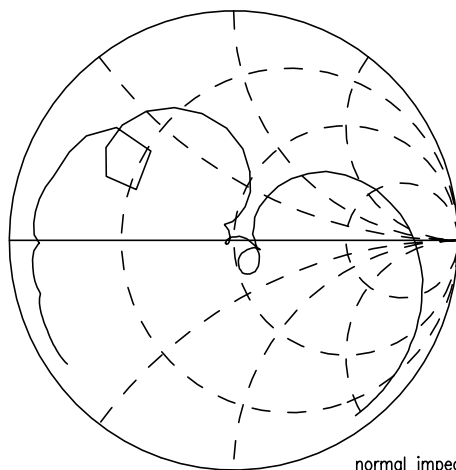
S₁₁ function



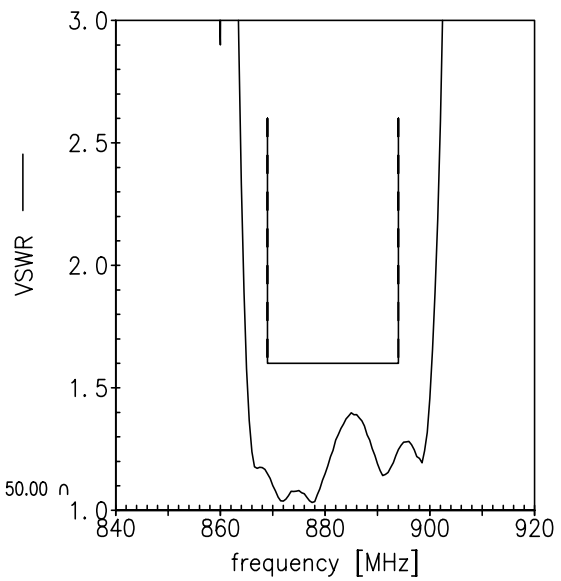
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



SAW Components	B4125
SAW filter	881.5 MHz

Data sheet



References

Type	B4125
Ordering code	B39881B4125U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B4125_NB.s2p, B4125_WB.s2p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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