



SAW Components

SAW filter

EGSM

Series/type:	B4130
Ordering code:	B39901B4130U410
Date:	November 04, 2009
Version:	2.0



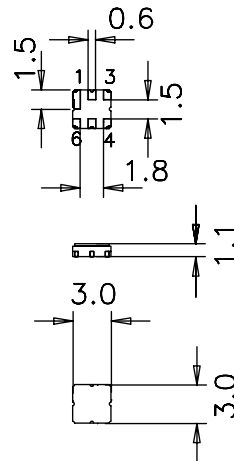
Application

- Low-loss RF filter for EGSM mobile systems
- Low amplitude ripple
- No matching required for operation at 50Ω
- Usable passband 35 MHz



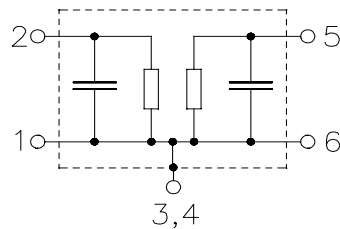
Features

- 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)**



Pin configuration

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





SAW Components	B4130
SAW filter	897.5 MHz

Data sheet



Characteristics

Temperature range for specification: $T = 25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_c	—	897.50	—	MHz
Maximum insertion attenuation	α_{\max}	—	2.0	2.3	dB
880.0 ... 915.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.8	1.1	dB
880.0 ... 915.0 MHz					
Input VSWR		—	1.7	2.0	
880.0 ... 915.0 MHz					
Output VSWR		—	1.7	2.0	
880.0 ... 915.0 MHz					
Attenuation	α				
0.0 ... 860.0 MHz		17	20	—	dB
925.0 ... 935.0 MHz		5.5	13	—	
935.0 ... 960.0 MHz		20	26	—	dB
960.0 ... 3660.0 MHz		20	26	—	



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Characteristics

Temperature range for specification: $T = -10$ to $+80$ °C

Terminating source impedance: $Z_S = 50$ Ω

Terminating load impedance: $Z_L = 50$ Ω

		min.	typ. @ 25 °C	max.	
Center frequency	f_c	—	897.50	—	MHz
Maximum insertion attenuation	α_{max}	—	2.0	2.5	dB
880.0 ... 915.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.8	1.3	dB
880.0 ... 915.0 MHz					
Input VSWR		—	1.7	2.0	
Output VSWR		—	1.7	2.0	
Attenuation	α				
0.0 ... 860.0 MHz		17	20	—	dB
925.0 ... 935.0 MHz		4	8	—	dB
935.0 ... 960.0 MHz		20	26	—	dB
960.0 ... 3660.0 MHz		20	26	—	dB



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Characteristics

Temperature range for specification: $T = -40$ to $+85^{\circ}\text{C}$

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

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

		min.	typ. @ 25 °C	max.	
Center frequency	f_c	—	897.50	—	MHz
Maximum insertion attenuation	α_{\max}	—	2.0	2.5	dB
880.0 ... 915.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.8	1.3	dB
880.0 ... 915.0 MHz					
Input VSWR		—	1.7	2.0	
880.0 ... 915.0 MHz					
Output VSWR		—	1.7	2.0	
880.0 ... 915.0 MHz					
Attenuation	α				
0.0 ... 860.0 MHz		17	20	—	dB
925.0 ... 935.0 MHz		3.2	7	—	dB
935.0 ... 960.0 MHz		20	26	—	dB
960.0 ... 3660.0 MHz		20	26	—	dB



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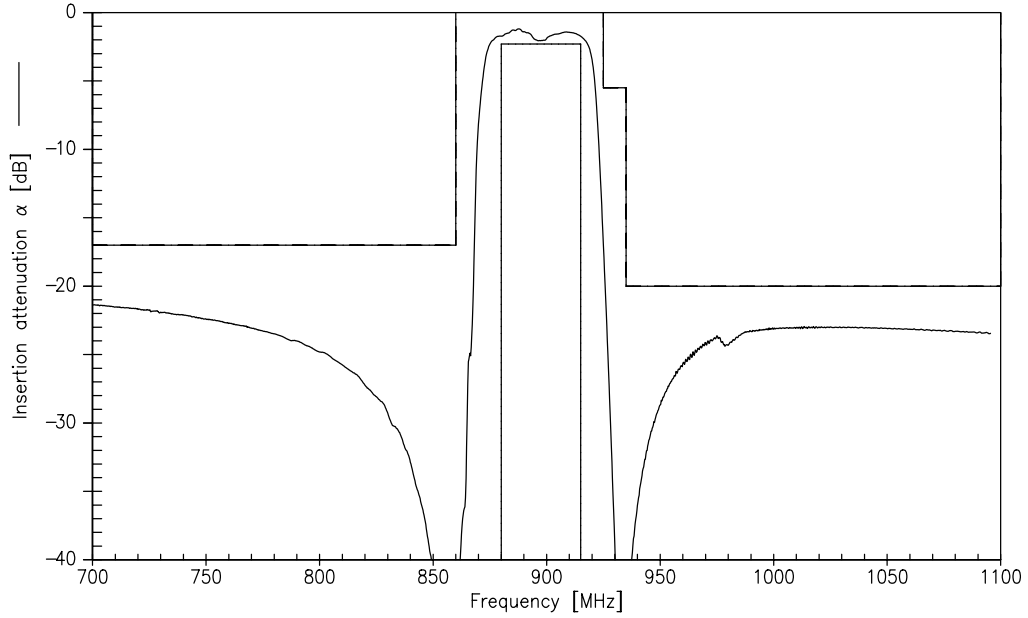
Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 1 pulse
Input power max				
925.0 ... 960.0 MHz	P _{IN}	12	dBm	continuous wave, 85 °C
	P _{IN}	15	dBm	continuous wave, 55 °C
880.0 ... 915.0 MHz	P _{IN}	17	dBm	continuous wave, 85 °C

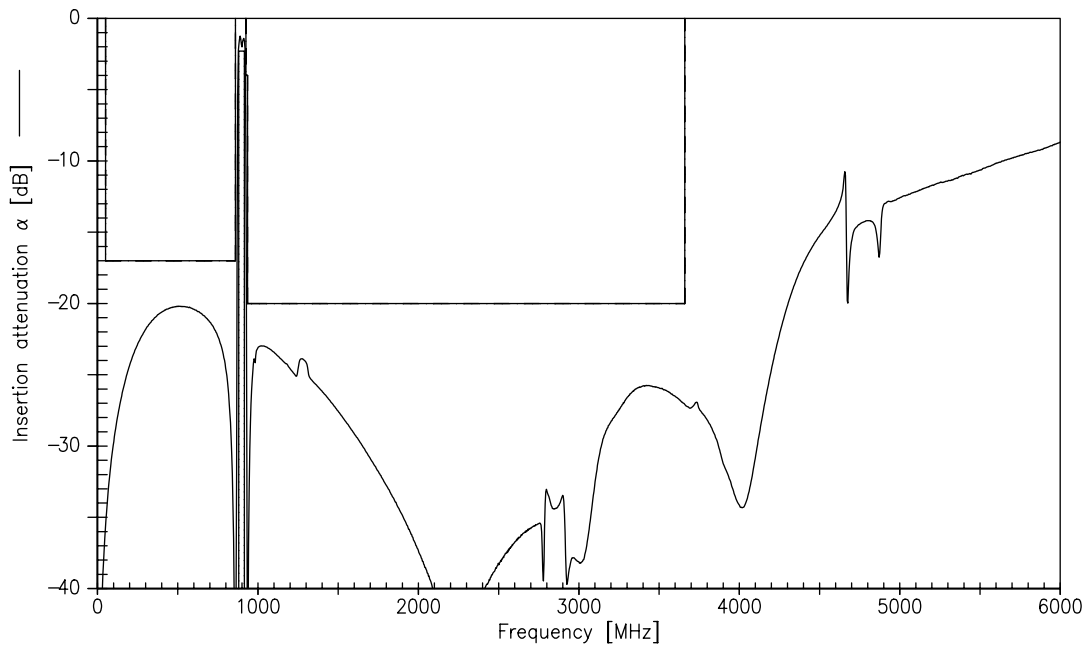
1) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (wideband)

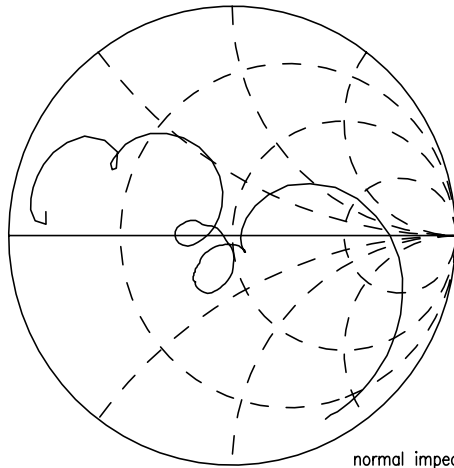


Data sheet

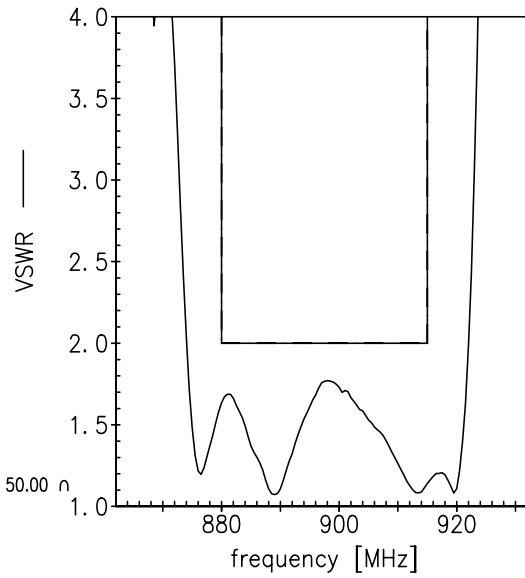


Smith charts

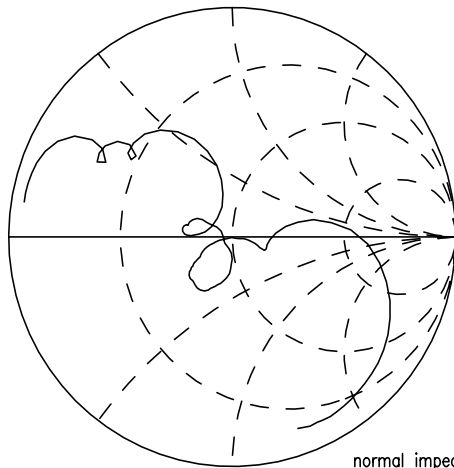
S₁₁ function



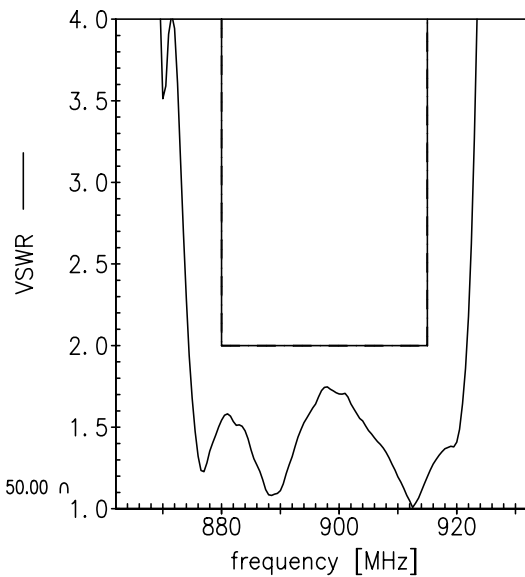
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω





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References

Type	B4130
Ordering code	B39901B4130U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B4130_NB.s2p B4130_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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

**Published by EPCOS AG
Surface Acoustic Wave Components Division
P.O. Box 80 17 09, 81617 Munich, GERMANY**

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