



SAW Components

SAW filter

Short range devices

Series/type:	B4146
Ordering code:	B39881B4146U510
Date:	June 26, 2006
Version:	2.0



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B4146

SAW filter

881.50 MHz

Data sheet



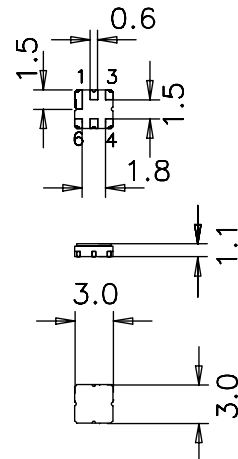
Application

- Low-loss RF filter for mobile telephone AMPS systems, receive path
- Low amplitude ripple
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 200 Ω



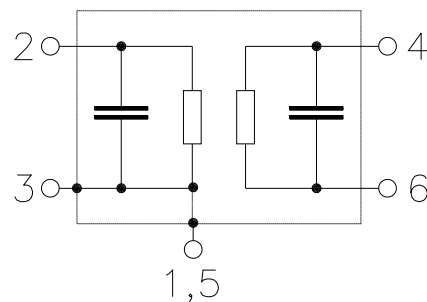
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input
- 4 Balanced output
- 6 Balanced output
- 1, 3, 5 Ground, to be grounded





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Characteristics

Reference temperature: $T_A = +25\text{ °C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 200\ \Omega \parallel 68\text{nH}(\text{balanced})$

		min.	typ.	max.	
Center frequency	f_C	—	881.50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
869.00 ... 894.00 MHz		—	2.5	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
869.00 ... 894.00 MHz		—	0.7	1.2	dB
VSWR					
869.00 ... 894.00 MHz		—	1.8	1.9	
Attenuation	α				
0.00 ... 824.00 MHz		50	60	—	dB
824.00 ... 849.00 MHz		35	40	—	dB
924.00 ... 970.00 MHz		30	40	—	dB
970.00 ... 1300.00 MHz		50	65	—	dB
1300.00 ... 2000.00 MHz		40	60	—	dB
2000.00 ... 3000.00 MHz		30	50	—	dB



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Characteristics

Temperature range for specification: $T_A = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
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		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	881.50	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	2.5	3.0	dB
	869.00 ... 894.00 MHz				
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Maximum ratings

Operable temperature range	T_A	−40/+85	°C	
Storage temperature range	T_{stg}	−40/+85	°C	
DC voltage	V_{DC}	5	V	
ESD	V_{ESD}	50	V	Human Body Model
Input power max.	P_{IN}	5	dBm	source impedance 50 Ω

Please read *cautions and warnings and important notes* at the end of this document.



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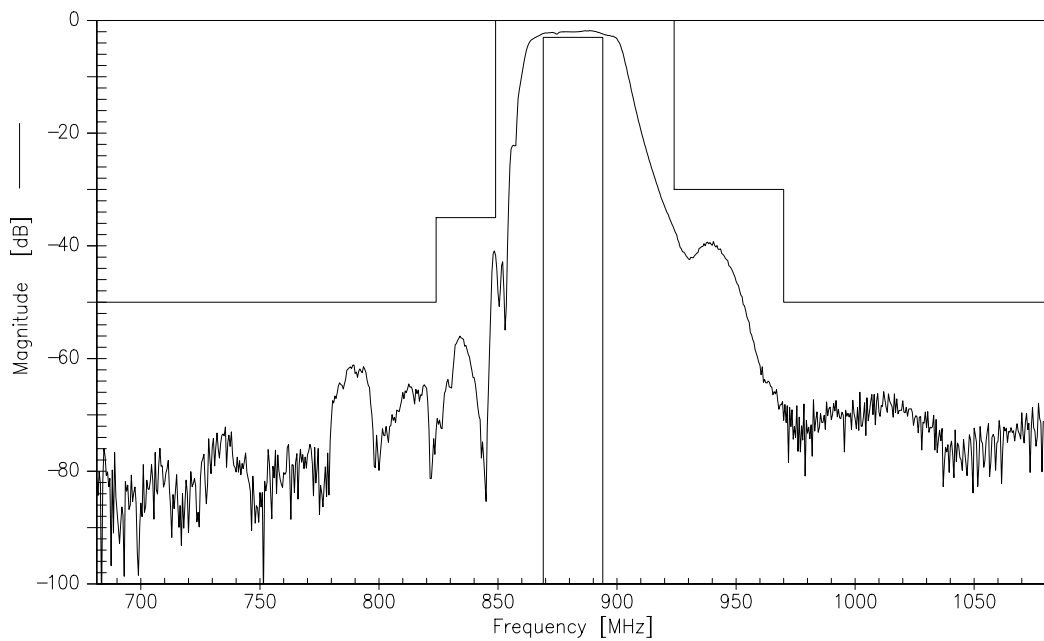
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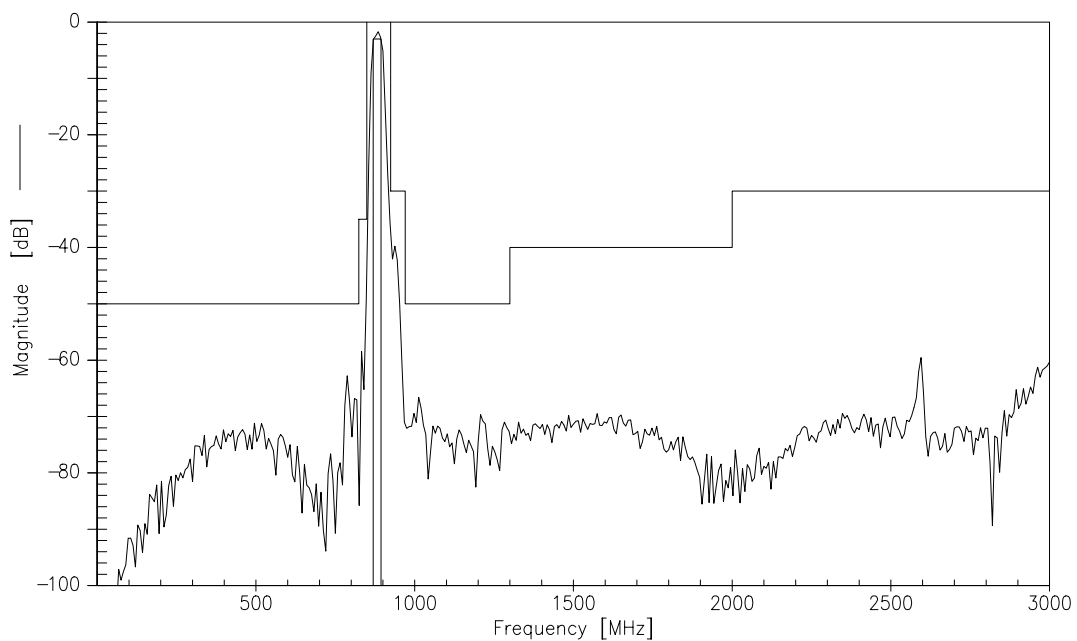
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Transfer function



Transfer function



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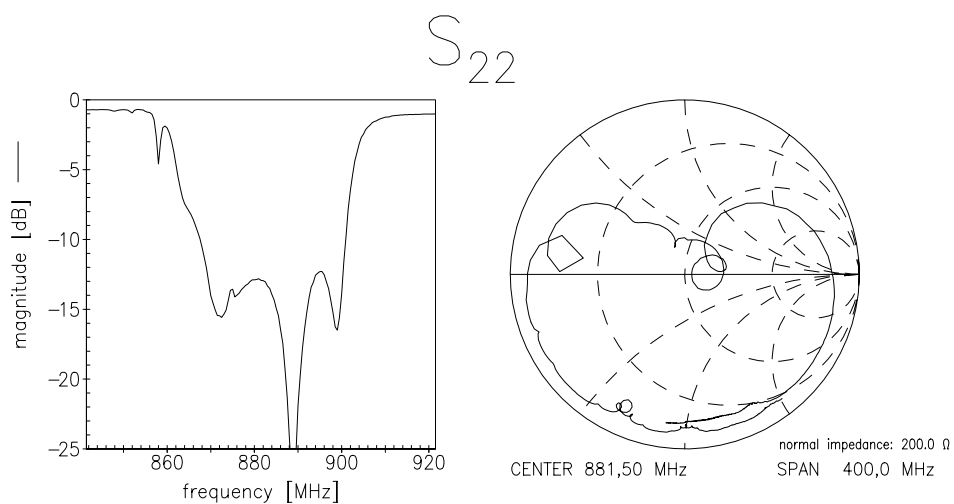
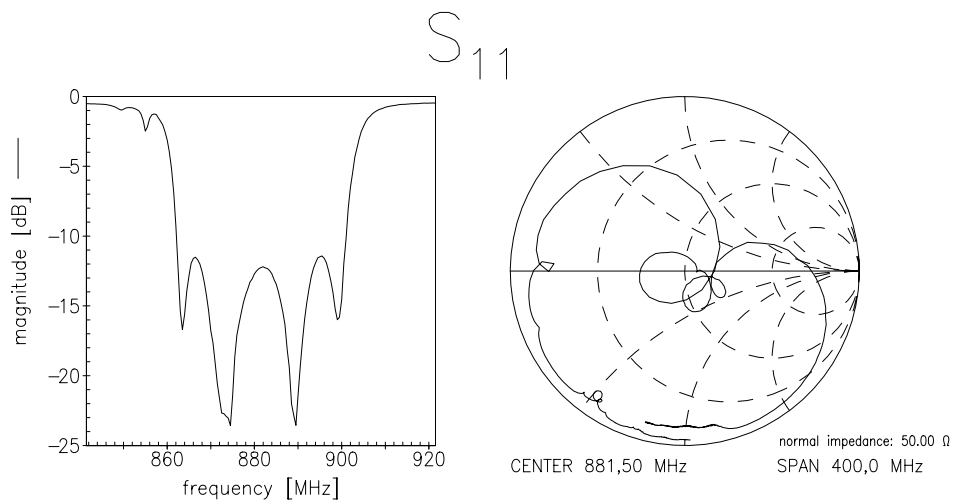
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Reflection functions (measurement)



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**References**

Type	B4146
Ordering code	B39881B4146U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8089-Z000
Date codes	L_1126
S-parameters	B4146_SB.s2p B4146_WB.s2p
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.

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Please read *cautions and warnings and important notes* at the end of this document.

8 June 26, 2006



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