



SAW Components

SAW filter

WiMAX

Series/type:	B4070
Ordering code:	B39811B4070U410
Date:	February 07, 2006
Version:	2.1



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B4070

SAW filter

810.00 MHz

Data Sheet



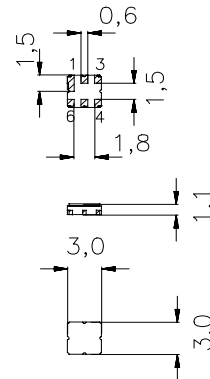
Application

- Low-loss IF filter for WiMAX systems
- Low amplitude ripple
- No matching required for operation at 50 Ω
- Usable passband 10 MHz



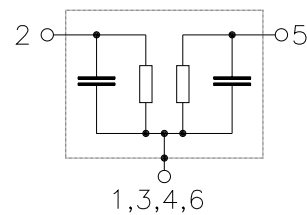
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compliant
- Approx. weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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





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Characteristics

Operating temperature range: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	810.0	—	MHz
Maximum insertion attenuation	α_{max}				
805.0 ... 815.0 MHz		—	2.5	3.0 ¹⁾	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
805.0 ... 815.0 MHz		—	0.5	1.0	dB
Group Delay ripple (p-p)	$\Delta\tau$				
805.0 ... 815.0 MHz		—	40	100	ns
Input return loss					
805.0 ... 815.0 MHz		10.0	12.0	—	dB
Output return loss					
805.0 ... 815.0 MHz		10.0	13.0	—	dB
Attenuation	α				
500.0 ... 780.0 MHz		25	35	—	dB
860.0 MHz		50	55	—	dB
1500.0 ... 2500.0 MHz		20	27	—	dB
Temperature coefficient of frequency	TC_f	—	-36	—	ppm/K

1) 2.7 dB max. at 25°C.



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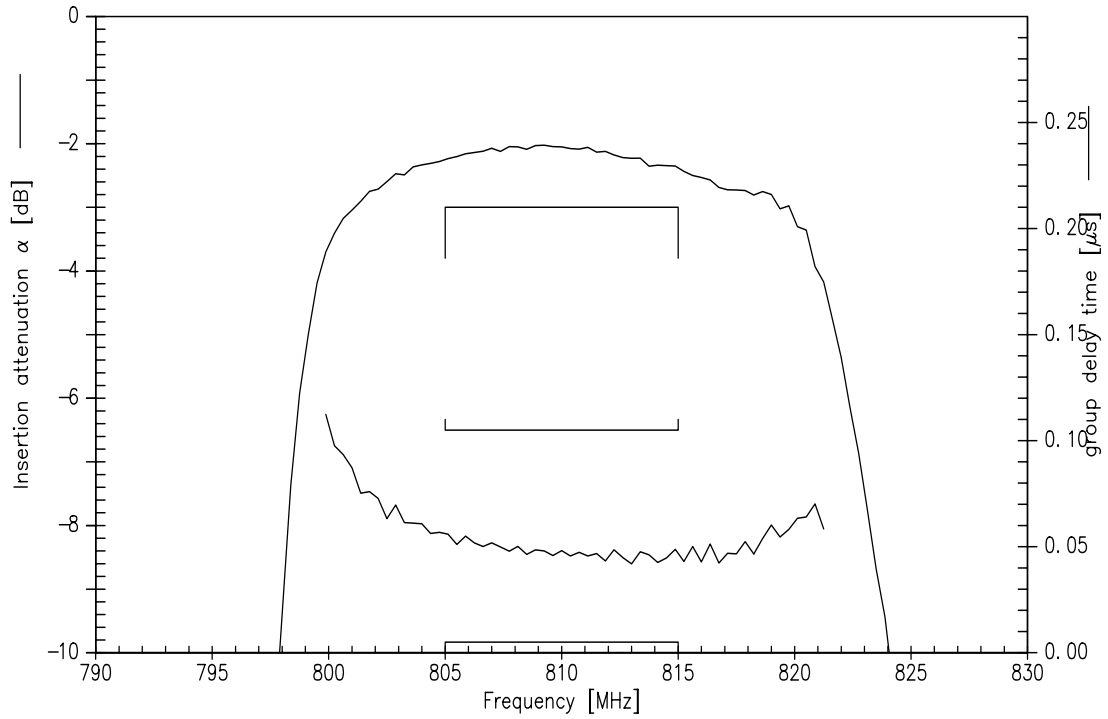
Maximum ratings

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, 10 pulses
Input Power at 805.0...815.0MHz	P _{IN}	5	dBm	continuous wave

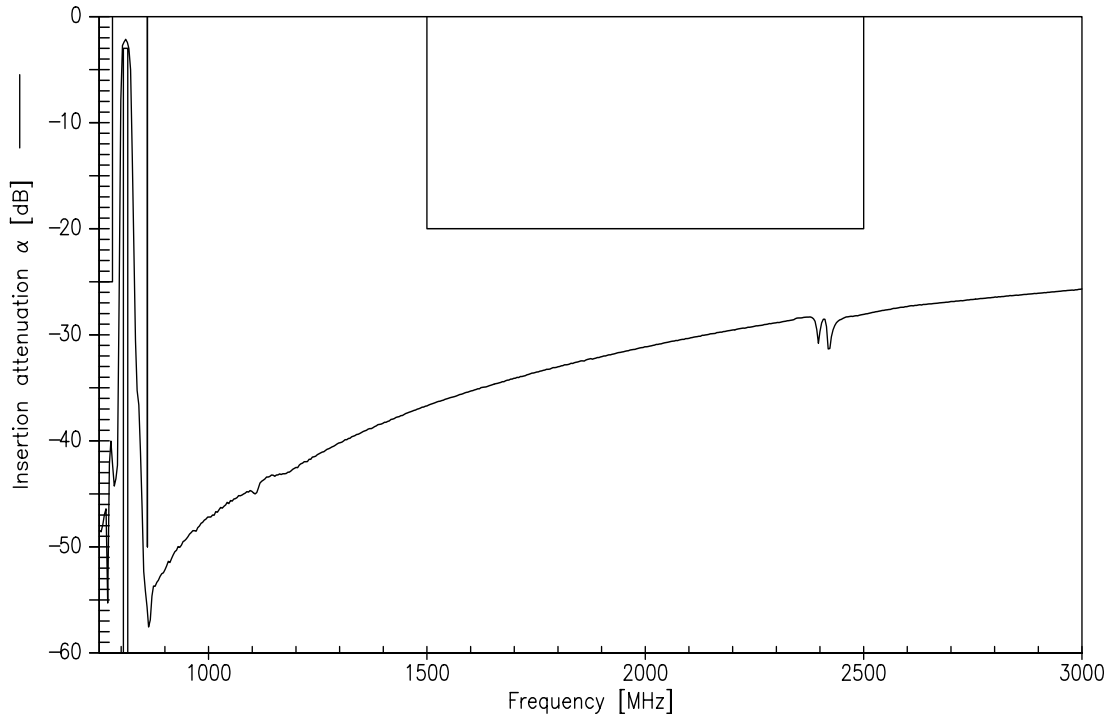
¹⁾ acc. to JEDEC22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function

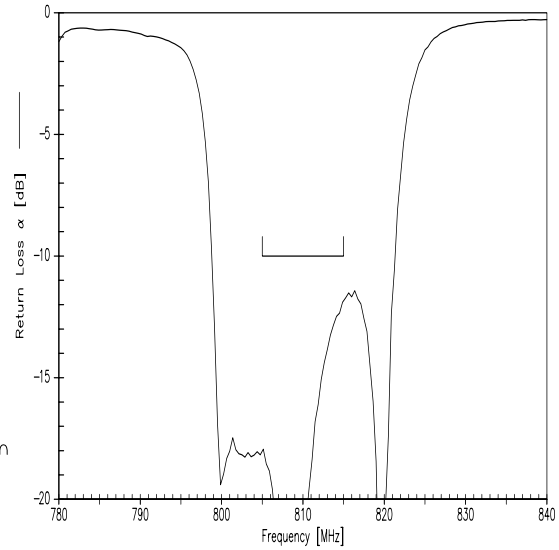
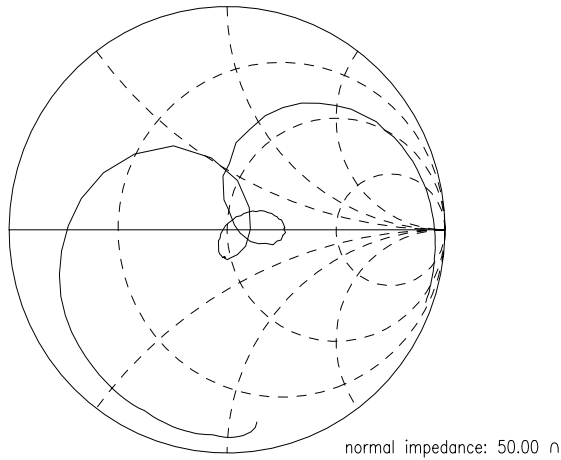


Transfer function (wideband)

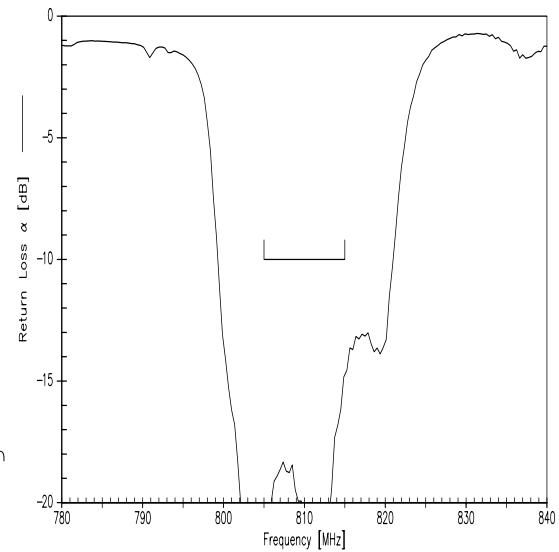
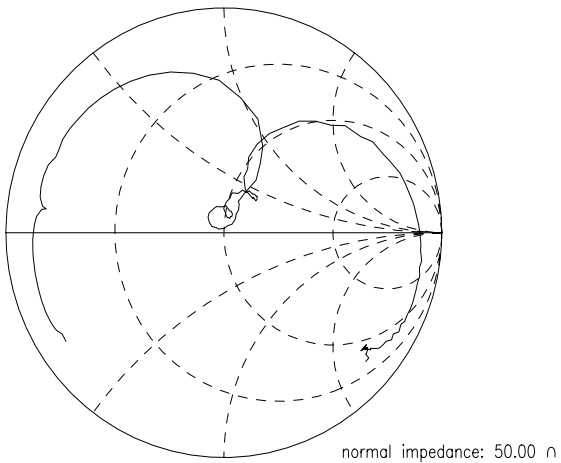


Smith charts

S_{11} function



S_{22} function





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References

Type	B4070
Ordering code	B39811B4070U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B4070_NB.s3p B4070_WB.s3p
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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