



SAW Components

SAW filter

iDEN

Series/type:	B3836
Ordering code:	B39821B3836U410
Date:	August 18, 2009
Version:	2.1

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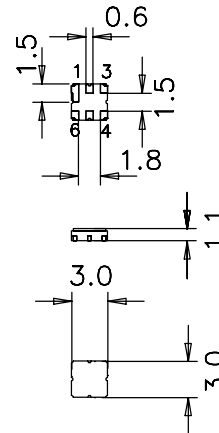
Application

- Low-loss RF filter for iDEN systems, transmit path (TX)
- No matching required for operation at 50Ω
- Usable passband 19 MHz



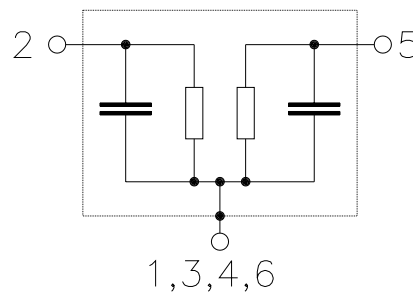
Features

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



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



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815.50 MHz

Data sheet



Characteristics

Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	815.50	—	MHz
Maximum insertion attenuation	α_{max}	—	2.7	3.7 ¹⁾	dB
806.00 ... 825.00 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.4	1.5	dB
806.00 ... 825.00 MHz					
Group delay ripple (p-p)	$\Delta\tau$	—	25	50	ns
806.00 ... 825.00 MHz					
Return loss (input and output)		10.0	11.0	—	dB
806.00 ... 825.00 MHz					
Relative attenuation (relative to α_{min})	α_{rel}				
851.00 ... 870.00 MHz		45	52	—	dB
935.00 ... 940.00 MHz		45	48	—	dB
960.65 ... 979.65 MHz		42	46	—	dB
1115.30 ... 1134.30 MHz		40	45	—	dB
1269.95 ... 1288.95 MHz		35	45	—	dB
1612.00 ... 1650.00 MHz		25	32	—	dB
1650.00 ... 2600.00 MHz		25	27	—	dB

¹⁾ 3.0dB max. at 25°C



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Maximum ratings

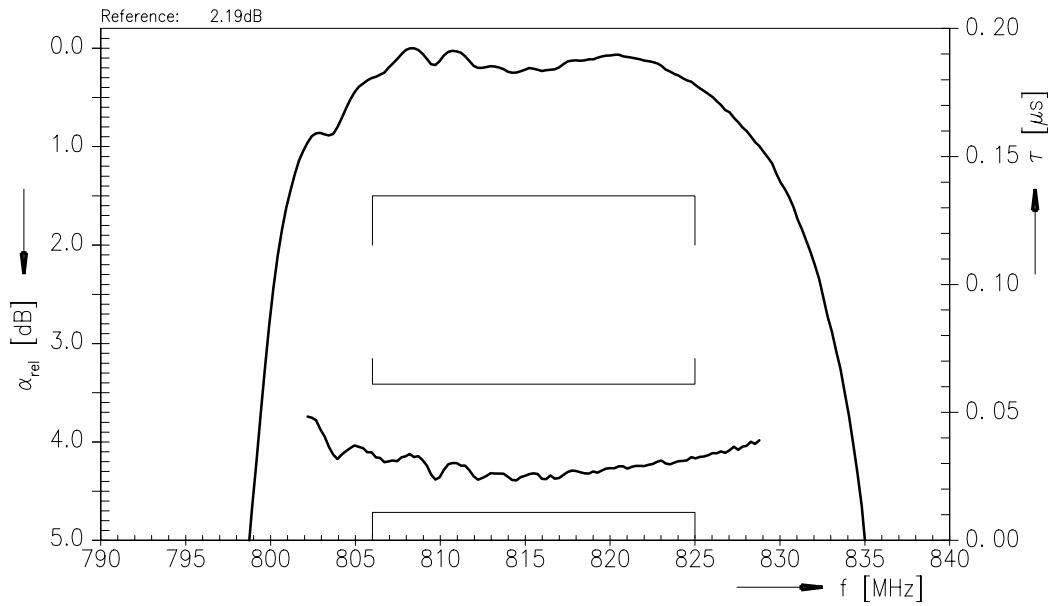
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 1 pulse
Input power at iDEN	P _{IN}	7	dBm	continuous wave
Tx bands				

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

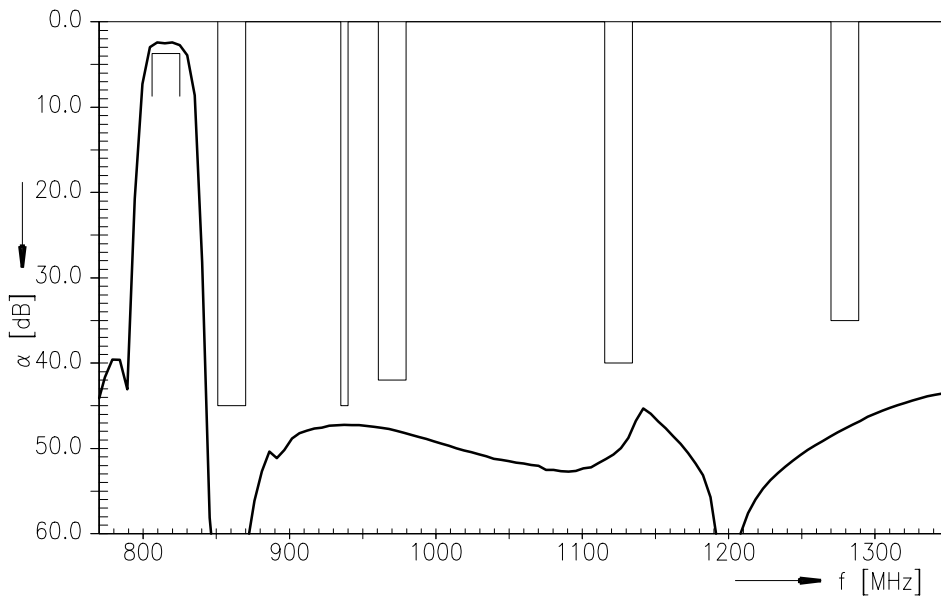
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Transfer function



Transfer function (wideband)



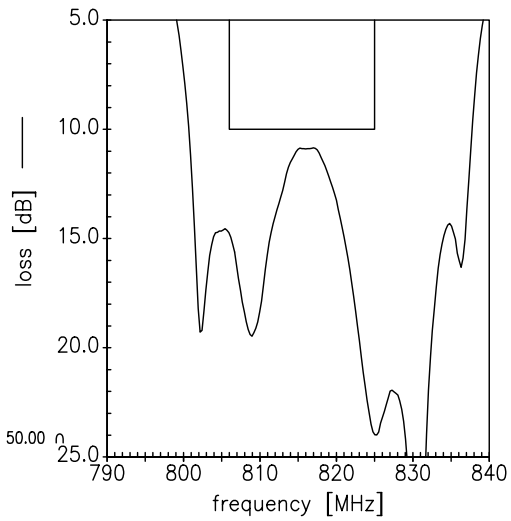
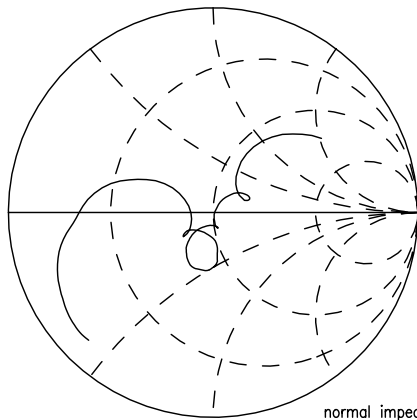
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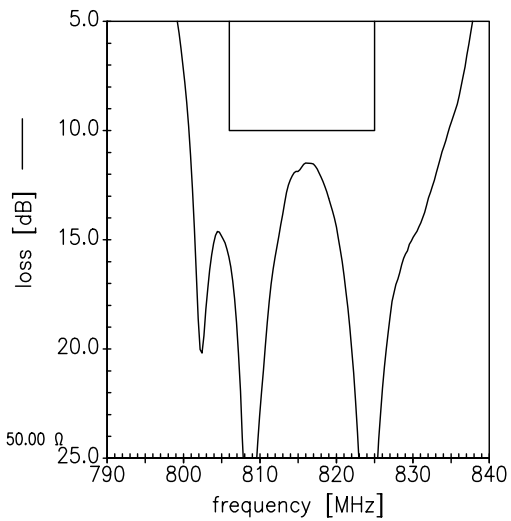
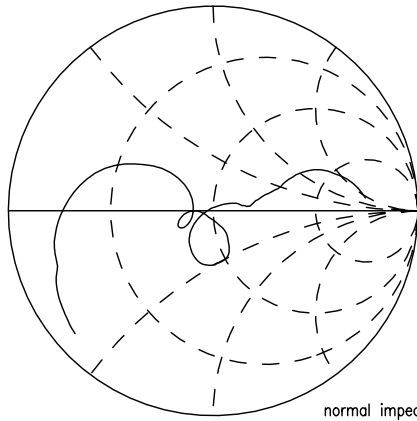


Smith charts

S₁₁ function



S₂₂ function



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References

Type	B3836
Ordering code	B39821B3836U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3836_NB.s2p B3836_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 .

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