SAW Components

SAW Tx Filter

iDEN

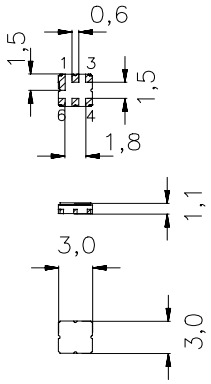
Series/Type:	**B3836**
Ordering code:	**B39821-B3836-U410**
Date:	Nov 10, 2005
Version:	1

Application

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

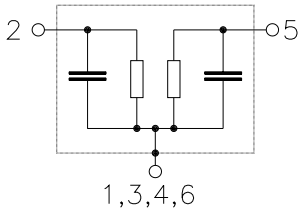
Features

- Package size 3.0 x1.1 x 3.0 mm³
- RoHS compliant
- Approx. weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals



Pin configuration

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



Data Sheet SMD

Characteristics

Operating temperature range: T = –30 to +85 ˚C
Terminating source impedance: Z_S = 50Ω
Terminating load impedance: Z_L = 50 Ω

		B3836 [1]			
		min.	typ. @ 25˚C	max.	
Center frequency	f_C	—	815.5	—	MHz
Maximum insertion attenuation	α_{max}				
806.0 ... 825.0 MHz		—	2.7	3.7 [2]	dB
Group Delay ripple (p-p)	$\Delta\tau$				
806.0 ... 825.0 MHz		—	25	50	ns
Return loss (Input and Output)					
806.0 ... 825.0 MHz		10.0	11.0	—	dB
Attenuation	α				
851.0 ... 870.0 MHz		45	52	—	dB
935.0 ... 940.0 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

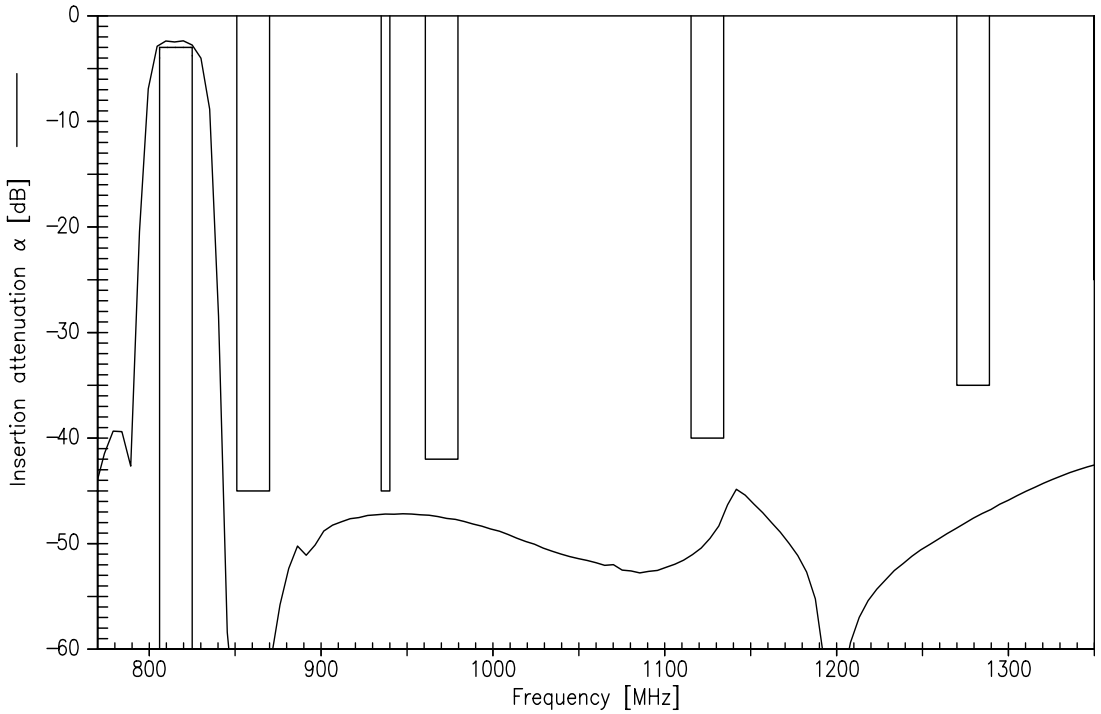
[1] Values in columns min, typ and max indicate the development status of the current version.
[2] 3,0 dB max. at 25˚C.

Maximum ratings

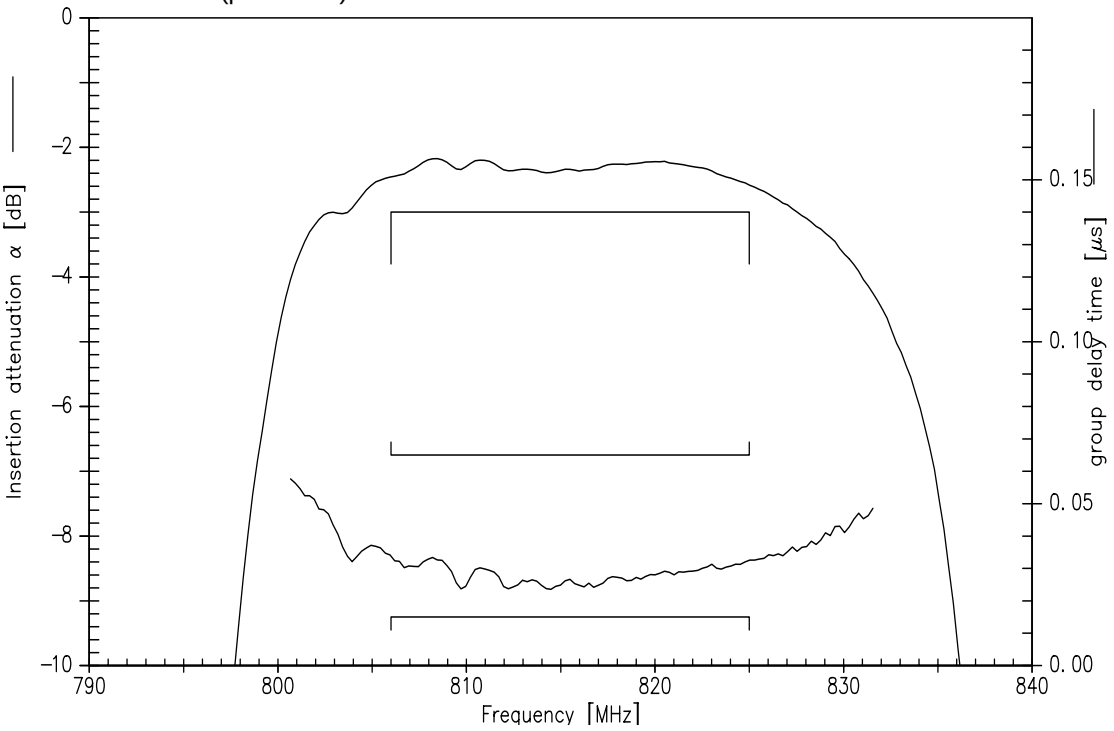
Operable temperature range	T	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100 [1)]	V	machine model, 10 pulses
Input Power at iDEN Tx bands	P_{IN}	7	dBm	continuous wave

[1)] acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.

Transfer function

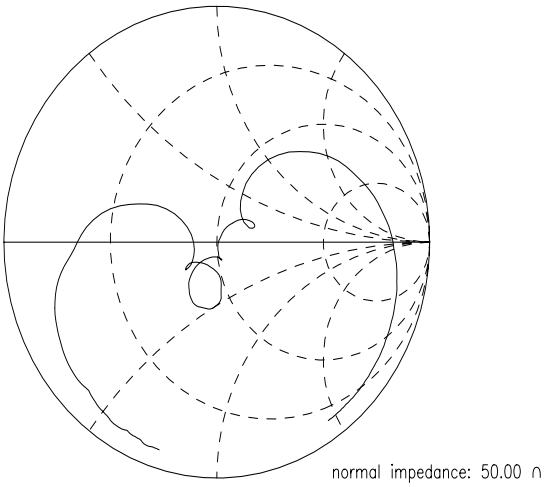


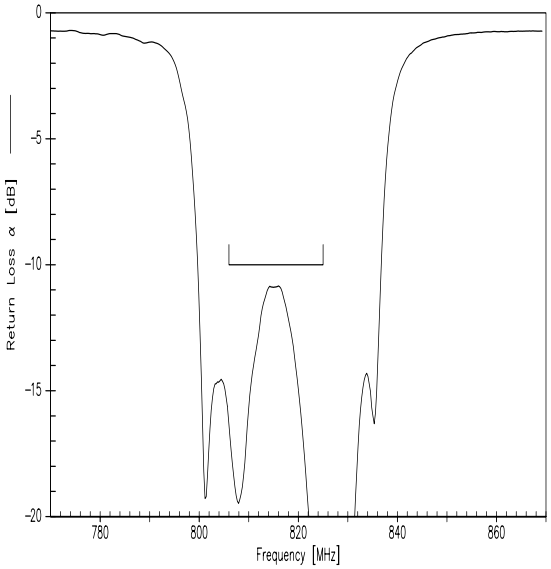
Transfer function (passband)



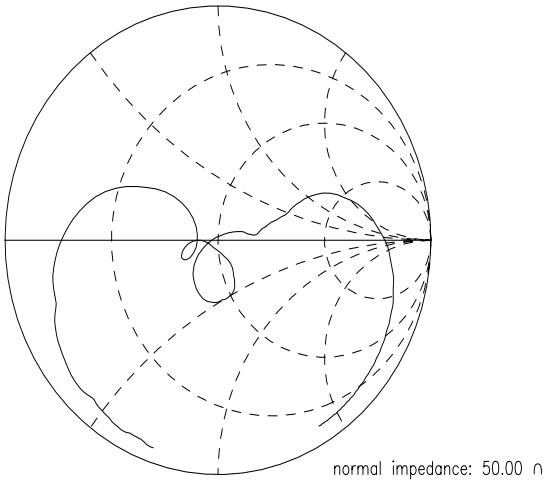
Smith chart

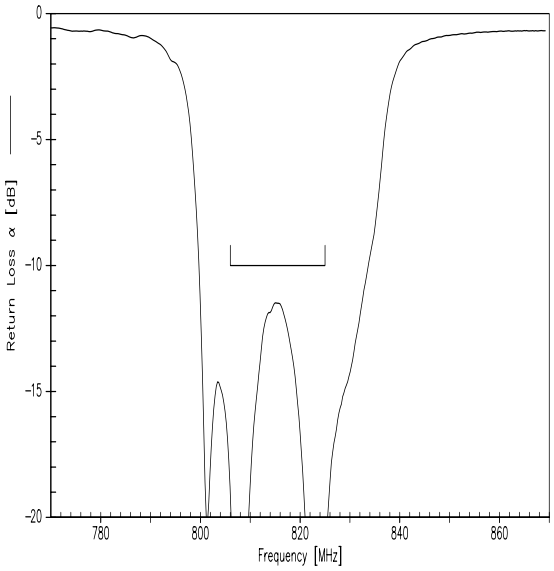
S_{11} function





S_{22} function





Type	B3836	
Ordering code	B39821-B3836-U410	
Marking and Package	C61157-A7-A67	
Packaging	F61074-V8168-Z000	
Date Codes	L_1126	
S-Parameters	B3836_NB.s2p B3836_WB.s2p	
Soldering profile	S_6001	

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

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