



SAW Components

SAW Tx Filter

iDEN

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

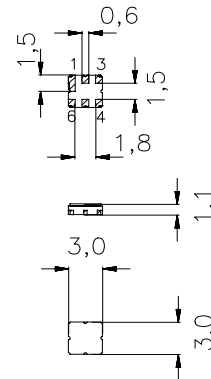
Application

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



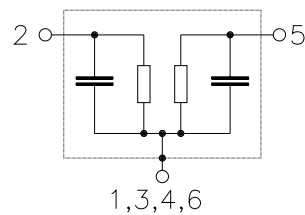
Features

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



Pin configuration

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





Data Sheet



Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50\Omega$
 Terminating load impedance: $Z_L = 50\Omega$

		B3836 ¹⁾			
		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	815.5	—	MHz
Maximum insertion attenuation	α_{max}	—	2.7	3.7 ²⁾	dB
806.0 ... 825.0 MHz					
Group Delay ripple (p-p)	$\Delta\tau$	—	25	50	ns
806.0 ... 825.0 MHz					
Return loss (Input and Output)		10.0	11.0	—	dB
806.0 ... 825.0 MHz					
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.



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B3836

Low-Loss Filter for Mobile Communication

815.50 MHz

Data Sheet



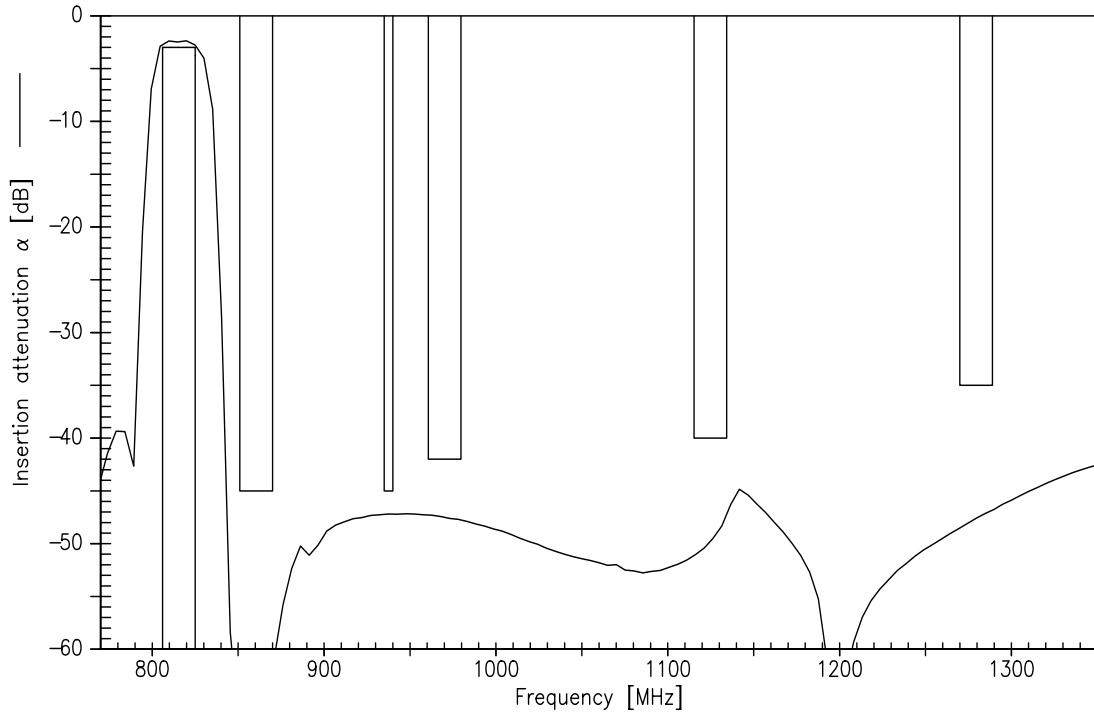
Maximum ratings

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	P _{IN}	7	dBm	continuous wave
Tx bands				

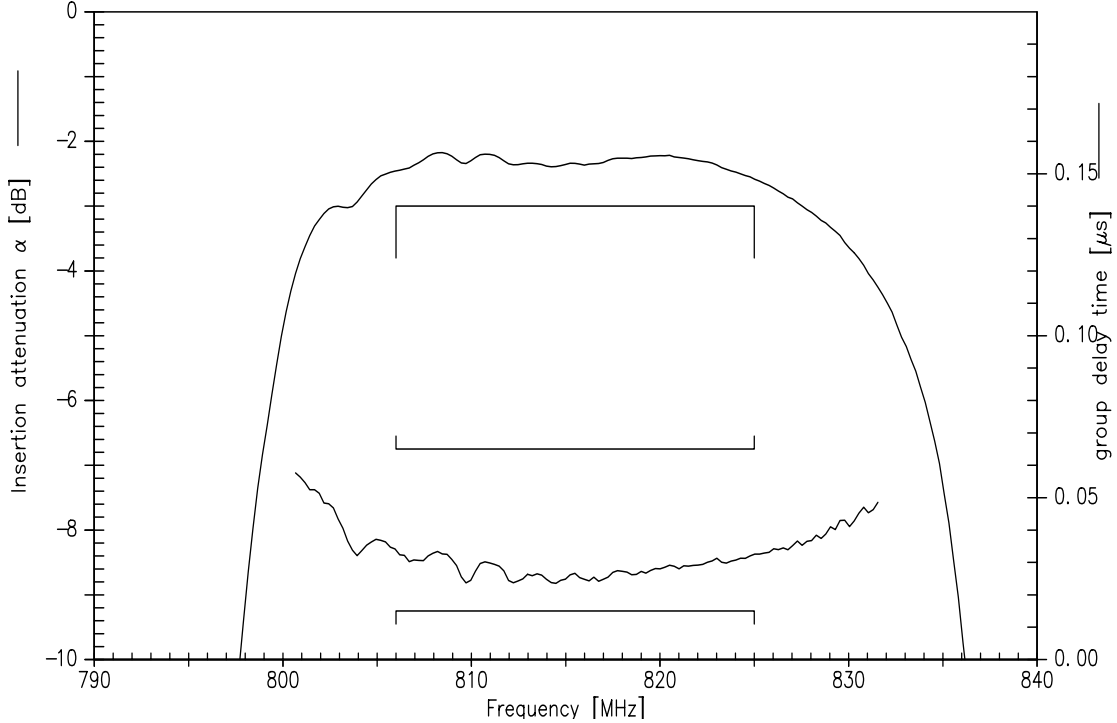
¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function



Transfer function (passband)

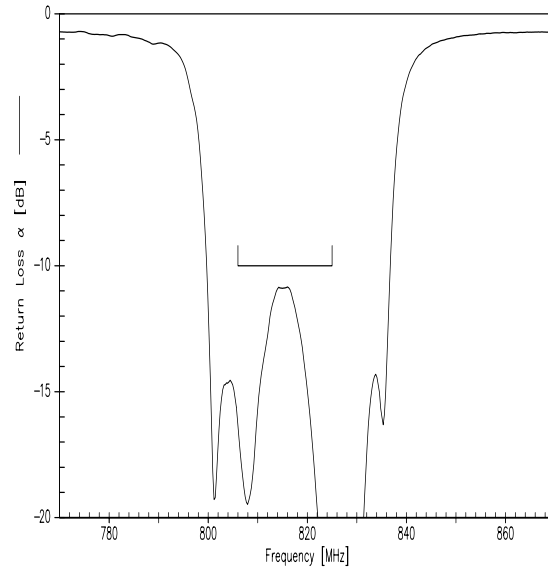
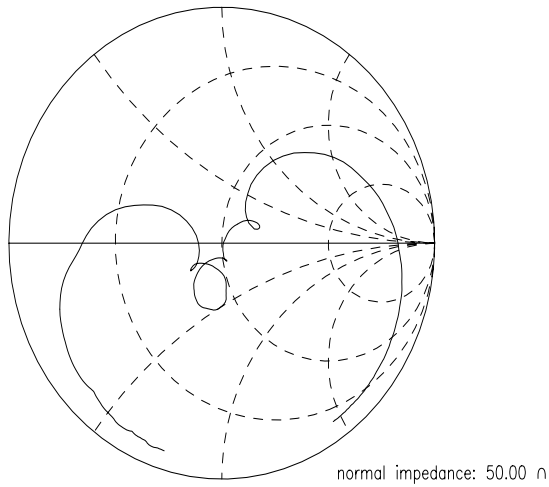


Data Sheet

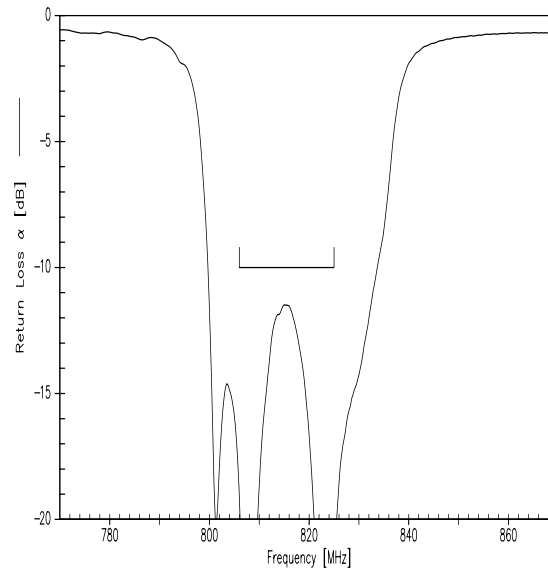
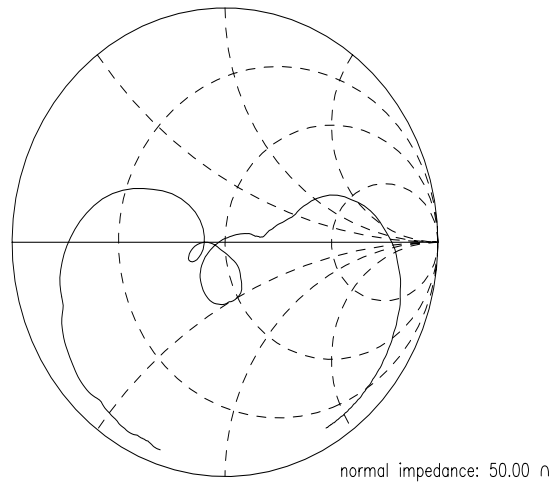


Smith chart

S_{11} function



S_{22} function





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Low-Loss Filter for Mobile Communication

815.50 MHz

Data Sheet



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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