



Integrated Technology Express, Inc.

Application Note of IT887X IT887x On Board Design Reference Guide V1.0

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Reversion History

Reversion	Change List	Note
V1.0		First Draft

IT887x design for card using INTA# (Sharing IRQx), driver auto detect IRQx & assign I/O address for IT887x. If customer intends to add more serial or parallel ports on their board, it is strongly recommended that SERIRQ# is used instead of INTA#. IT887x doesn't need the driver, except the dummy driver^{Note}, thereby avoiding the compatibility issue. SERIRQ# can be used to set UART1, UART2, Parallel port interrupt routing to SERIRQ via the serial EEPROM (SM-bus). All ports can be set to different IRQx & I/O addresses.

Note: Because IT887x is a PNP device, it needs a dummy driver to cover "!" signal in Windows system.

Here is an example for IT8872 on board design, using SERIRQ.

Reset-Strap Setting

Symbol	Jumper	Function Description
CSA0#	(P/UP)	INTA#
	P/Down	SERIRQ#

Programming steps:

- a. Set Internal UART1, UART2 and Parallel Ports Base Address
 - ====> IT8872' s configuration 7Ch<15::00>=03,F8h (UART1)
 - ====> IT8872' s configuration 7Ch<31::16>=02,F8h (UART2)
 - ====> IT8872' s configuration 80h<15::00>=03,78h (Internal LPT)
 - ====> IT8872' s configuration 80h<31::16>=07,78h (Internal LPT for ECP)
- b. Positive Decode UART1, UART2 and Parallel Ports I/O Base Address
 - ====> IT8872' s configuration 60h<31::0>=E3,00,03,F8h (UART1)
 - ====> IT8872' s configuration 64h<31::0>=E3,00,02,F8h (UART2)
 - ====> IT8872' s configuration 68h<31::0>=E3,00,03,78h (Internal LPT)
 - ====> IT8872' s configuration 6Ch<31::0>=E3,00,07,78h (Internal LPT for ECP)
- c. Set Internal UART1, UART2 and Parallel Ports' Interrupt Routing
 - ====> IT8872' s configuration 9Ch<15::12>=0100b (UART1)
 - ====> IT8872' s configuration 9Ch<11::08>=0011b (UART2)
 - ====> IT8872' s configuration 9Ch<07::04>=0111b (Internal LPT)
- d. Set Internal Parallel Ports' Mode & DMA Channel
 - ====> IT8872' s configuration 9Ch<31::30>=11b (SPP & EPP & ECP mode)
 - ====> IT8872' s configuration 9Ch<29::27>=011b (DMA channel_3)
- e. Enable Internal UART1, UART2 and Parallel Ports' control
 - ====> IT8872' s configuration 9Ch<23::21>=111b