

TOSHIBA Microcontrollers TLCS-870 Family
TLCS-870/C Series

TMP86CH87RUG TMP86CM87RUG TMP86PM87UG

Dear Customer

March 2006

Restriction on Use of the Interrupt Controller

This is to inform you of a restriction that has been found with regard to the interrupt controller contained in some of the TLCS-870/C Series microcontrollers. If you need further information, please contact your local Toshiba sales office.

[Phenomenon]

If the interrupt source /INT5 (external interrupt) is used together with other interrupt sources, the interrupt latch IL15 for /INT5 may be cleared without the interrupt that set the latch being processed depending on interrupt acceptance timing.

[Condition]

This phenomenon occurs if an /INT5 (external interrupt) request is generated while an interrupt with priority lower than /INT5 ^(Note1) is being accepted.

(Note 1) Interrupt sources with priority lower than /INT5

TMP86xx87: (EF16) CAN receive interrupt, (EF17) CAN transmit interrupt,
(EF18) CAN global interrupt

Please note that this phenomenon occurs only with /INT5 (external interrupt), and no other interrupt sources are affected by it.

[Restriction]

Because of the phenomenon described above, use of /INT5 (external interrupt) is prohibited in the TMP86CH87, TMP86CM87, and TMP86PM87. Please use other external interrupts. For this reason, be sure to always set bit 15 (EF15) of the interrupt enable register (EIRH) to "0" in these products.

We apologize for any inconvenience this may cause.