ERRATA
TO THE TMS370CxBx DATA SHEET

(TEXAS INSTRUMENTS LITERATURE NO. SPNS038A, January 1996; and SPNS038B, March 1996)

(Unless otherwise noted, page numbers are applicable to SPNS038A and SPNS038B)

The TMS370CxBx devices do not support memory expansion.

Page: Change or Add:

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- Change the following original pin names to the new pin names for the FN package (top view) and the NM package (top view):

TMS370CxBx Pinout Package (Top View) Updates

ORIGINAL PIN NAME	PIN NUMBER NM–SDIP (64)	PIN NUMBER FN–LCC (68)	NEW PIN NAME
INT1	50	52	INT1/NMI
AN0	14	36	AN0/E0
AN1	34	37	AN1/E1
AN2	35	38	AN2/E2
AN3	36	39	AN3/E3
AN4	37	40	AN4/E4
AN5	38	41	AN5/E5
AN6	39	42	AN6/E6
AN7	42	43	AN7/E7
D0/$\overline{\text{CSE2}}$/$\overline{\text{OCF}}$	59	64	D0
D1/$\overline{\text{CSH3}}$	56	60	D1
D2/$\overline{\text{CSH2}}$	—	59	D2
D4/R/$\overline{\text{W}}$	54	57	D4
D5/$\overline{\text{CSPF}}$	—	56	D5
D6/$\overline{\text{CSH1}}$/$\overline{\text{EDS}}$	53	55	D6
D7/$\overline{\text{CSE1}}$/$\overline{\text{WAIT}}$	52	54	D7

- Delete the following items under the bulleted feature, “Internal System Memory Configurations”
  - External Memory/Peripheral Wait States
  - Precoded External Chip-Select Outputs in Microcomputer Mode

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2±3

From the Pin Descriptions Table:

- Delete the ALTERNATE FUNCTION column
- Change the description for pins A0–A7 to “Port A is a general-purpose bidirectional I/O port.”
- Change the description for pins B0–B7 to “Port B is a general-purpose bidirectional I/O port.”
- Change the description for pins C0–C7 to “Port C is a general-purpose bidirectional I/O port.”
- Add “/NMI” to “INT1” in the PIN NAME column (INT1/NMI)
- Add “/E0”–“/E7” to “AN0”–“AN7” in the PIN NAME column (for example, change AN0 to AN0/E0, AN1 to AN1/E1, and so forth)
- Change the description for pins D0±D7 to “Port D is a general-purpose bidirectional I/O port. D3 also can be configured as SYSCLK.”
- Add “/SYSCLK” to “D3” in the PIN NAME column (D3/SYSCLK)

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2±3 From the Pin Descriptions Table:

- Delete the double-dagger (‡) symbol footnote from the table and the ‡ symbol from the DESCRIPTION column header
- Delete **Table 1. Function A: Memory Access Locations for 'xBx Devices**

Page: **Change or Add:**

4 From the functional block diagram:

- Delete "Data", "Address LSbyte", "Address MSbyte", "Control", and "Memory Expansion" from the bus

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5 From **Table 2. Memory Configurations**:

- Delete the OFF-CHIP MEMORY EXPANSION (BYTES) column and the OPERATING MODES columns
- Delete the dagger (†) and the double-dagger (‡) symbol footnotes

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- Delete the paragraph that begins with: "For large memory applications, the TMS370CxBx family provides ..." and ends with: "... for general-purpose digital input/output pins when operating in the microcomputer mode."

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7–8

- Delete all the information under the sections titled **modes**, **modes (continued)**, and **memory/ peripheral wait operation**

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9 From **Figure 1. Programmer's Model**:

- Change the block labeled "Peripheral Expansion" to **Reserved**†
- Change the blocks labeled "Memory Expansion" (2000h–3FFFh and 8000h–FFFFh) to **Not Available**‡
- Add a double-dagger (‡) symbol footnote that read: "‡Not available means that the address space is not accessible."

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11 From the section titled "**memory map**":

- Delete the following sentence from the first paragraph: "In the expansion mode, external memory peripherals are also memory-mapped into this common address."
- Change the sentence beginning with: "As shown in Figure 3, the TMS370Cx7x provides a **16-bit address range to access internal or external** ..." to read "As shown in Figure 3, the TMS370CxBx provides a **memory-mapped** RAM, ROM, data EEPROM, peripheral functions, and system-interrupt vectors."
- Delete "on- and off-chip" from the first sentence in the second paragraph: "The peripheral file contains all input/output port control, on- and off-chip ..."

Page: **Change or Add:**

12 From **Figure 3. TMS370CxBx Memory Map**:

- Delete the four '0B6 memory maps on the left side of the diagram
- Delete the shading legend: "On-Chip For TMS370C0B6 Devices"
- Delete the double-dagger (‡), section (§) and paragraph (¶) symbol footnotes
- Change the block labeled "Peripheral Expansion" to **Reserved**†
- Change the blocks labeled "Memory Expansion" (2000h–4000h and 8000h–FFFFh) to **Not Available**‡

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12 From **Figure 3. TMS370CxBx Memory Map**:

- Add a double-dagger (‡) symbol footnote that read: “‡Not available means that the address space is not accessible.”

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13 From **Table 6. TMS370CxBx Peripheral File Address Map**:

- Delete the last row : “10C0h–10FFh, P0C0–P0FF, External peripheral control”
- Change “1080h–10BFh” in the hex ADDRESS RANGE column to “1080h–10FFh”
- Change “P080–P0BF” in the PERIPHERAL FILE DESIGNATOR column to “P080–P0FF”

Page: **Change or Add:**

14–15 In the **system reset** section, below **Table 8. Reset Sources**, and in the **system reset (continued)** section:

- Delete the sentence: “During $\overline{\text{RESET}}$, the two basic operating modes, which are the microcomputer and microprocessor modes, . . . operating modes description).” from the paragraph that begins with: “The reset sequence takes 20 SYSCLK cycles . . . ”

Page: **Change or Add:**

21 From **Table 14. Port Configuration Register Setup**:

- Delete the following from the **INPUT** column:

XPORT1 = 0†
XPORT2 = 0
XDATA = y
XDIR = 0

- Delete the following from the **OUTPUT** column:

XPORT1 = 0†
XPORT2 = 0
XDATA = q
XDIR = 1

- Change the **INPUT** column header to **abcd** **00y0** and the **OUTPUT** column header to **abcd** **00q1**
- Change the numbers printed vertically in the **PIN** column (“D” row) to “0–7”
- Change the last row to:

a = Port x Control Register 1
b = Port x Control Register 2
c = Data
d = Direction

- Delete the **FUNCTION A** column and the **FUNCTION B (μP MODE)** column
- Delete the dagger (†) symbol footnote

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35 From the **development system support (continued)** section:

- Change the Starter Kit (Part No. from “TMDX37000” to “TMDS37000”.

Page: **Change or Add:**

42 (SPNS038) and 41 (SPNS038A):

From the **timing parameter symbology** section:

- Delete the following abbreviated terminology:

E	$\overline{\text{EDS}}$
FE	Final
IE	Initial
WT	$\overline{\text{WAIT}}$

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45 (SPNS038): From the **switching characteristics and timing requirements** † table: **(see Figure 23 and Figure 24)** table:

- Delete “and Figure 24” from the table title

44 (SPNS038A): From the **switching characteristics and timing requirements for external read and write**† **(see Figure 23 and Figure 24)** table:

- Delete “for external read and write” and “and Figure 24” from the table title

45 (SPNS038) and 44 (SPNS038A):

- Delete the rows numbered 8 through 23
- Change the $0.5t_c \pm 25$ MIN rating for row no. 6, “$t_{w(SCL)}$ Pulse duration, SYSCLK low”, to $0.5t_c \pm 20$
- Delete the double-dagger (‡) and section (§) symbol footnotes

Page: **Change or Add:**

46 (SPNS038) and 45 (SPNS038A):

From **Figure 23. External-Read Timing**:

- Delete everything but the SYSCLK waveform and parameters 5, 6, and 7
- Change the figure title to “**Figure 23. SYSCLK Timing**”

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47 (SPNS038) and 46 (SPNS038A):

- Delete Figure 24. **“External-Write Timing”**

Page: **Change or Add:**

48 (SPNS038) and 47 (SPNS038A):

From the **recommended operating conditions** table in the **analog-to-digital converter 1 (ADC1)** section:

- Change the V_{CC3} Analog supply voltage **MIN** value ($V_{CC3} \pm 3$) to $V_{CC3} \pm 0.3$

48 (SPNS038):

- Change the V_{SS3} Analog input voltage **MIN** value ($V_{SS3} \pm 3$) to $V_{SS3} \pm 0.3$
- Change the description of V_{SS3} from “Analog input voltage” to “Analog ground”
- Change V_{SS3} Analog ground **MIN** value ($V_{SS3} \pm 3$) to $V_{SS3} \pm 0.3$

For TMS370CxBx SPNS038 Version ONLY:

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34–35 (SPNS038):

Under the **development system support** section:

- Delete the “XDS/22 (extended development support) in-circuit emulator” bulleted item and all its associated subitems.

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