



PRODUCT BULLETIN

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ISSUE DATE: 25-May-2016
NOTIFICATION: 17192
TITLE: New Lower Power Variants Available in T4 Product Family
EFFECTIVE DATE: 28-May-2016

DEVICE(S)

MPN
T4080NSE7PQB
T4080NSE7QTB
T4080NSN7PQB
T4080NSN7QTB
T4080NXE7PQB
T4080NXN7PQB
T4081NSE7PQB
T4081NSE7QTB
T4081NSE7TTB
T4081NSN7PQB
T4081NSN7QTB
T4081NSN7TTB
T4081NXE7PQB
T4081NXE7QTB
T4081NXE7TTB
T4081NXN7PQB
T4081NXN7QTB
T4081NXN7TTB
T4160NSE7PQB
T4160NSE7QTB
T4160NSE7TTB
T4160NSN7PQB
T4160NSN7QTB
T4160NSN7TTB
T4160NXE7PQB

T4160NXN7PQB
T4161NSE7PQB
T4161NSE7QTB
T4161NSE7TTB
T4161NSN7PQB
T4161NSN7QTB
T4161NSN7TTB
T4161NXE7PQB
T4161NXE7QTB
T4161NXE7TTB
T4161NXN7PQB
T4161NXN7QTB
T4161NXN7TTB
T4240NSE7PQB
T4240NSE7QTB
T4240NSE7TTB
T4240NSE7XXPZB
T4240NSE7XXQZB
T4240NSE7XXTZB
T4240NSN7PQB
T4240NSN7QTB
T4240NSN7TTB
T4240NXE7PQB
T4240NXE7XXZXB
T4240NXE7XXZZB
T4240NXN7PQB
T4241NSE7PQB
T4241NSE7QTB
T4241NSE7TTB
T4241NSN7PQB
T4241NSN7QTB
T4241NSN7TTB
T4241NXE7PQB
T4241NXE7QTB
T4241NXE7TTB
T4241NXN7PQB
T4241NXN7QTB
T4241NXN7TTB

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AFFECTED CHANGE CATEGORIES

- NEW PRODUCT QUALIFICATION

DESCRIPTION OF CHANGE

NXP would like to make you aware that it has released three new low-power members of the T4 family: the T4241, T4161, and the T4081 (collectively referred to as T4xx1). The T4xx1 devices enable our customers to immediately gain thermal headroom or reduce cooling costs. We believe that as a user of the standard power T4240, T4160, or T4080 (T4xx0 devices), that you may be interested to know that these lower power options are available. No action is required on your side as there are no changes to the existing T4240, T4160, or T4080; this message is purely informational.

The T4xx1 devices are identical to the T4240, T4160, and T4080 (T4xx0), except for these differences:

- The thermal power is 11 – 21% lower (depending on device and speed bin)
- T4xx1 offers extended temperature (-40C to 105C) on all speed bins: 1.5GHz, 1.67GHz, and 1.8GHz. Extended temperature is offered only at 1.5GHz for T4xx0.
- T4081 is offered at 1.5GHz, 1.67GHz and 1.8GHz. The T4080 is only offered at 1.5GHz and 1.67GHz.

T4xx0 devices are pin and software compatible with T4xx1 devices. For a user of T4xx0, there are no changes required at the board level or in software to start using T4xx1.

All T4240, T4160, and T4080 part numbers will continue to exist in parallel with the T4xx1 part numbers. T4xx1 is on the same longevity program as T4xx0. Customers are not required to migrate from T4xx0 to T4xx1.

The T4xx1 devices are documented in the T4 family Hardware Specifications, Rev 1, available at: http://www.nxp.com/products/microcontrollers-and-processors/power-architecture-processors/qoriq-power-architecture-processors/qoriq-t4240-t4160-t4080-multicore-communications-processors:T4240?fp=1&tab=Documentation_Tab#

The below table compares T4xx0 and T4xx1 for the Thermal power with Altivec disabled specification. See the Hardware Specifications for a complete listing of other power specifications.

	T4xx0 Thermal Power (Altivec disabled)	T4xx1 Thermal Power (Altivec disabled)	Reduction
8 threads	T4080	T4081	
1500MHz	28.6	24.0	16%

1667MHz	35.6	28.1	21%
1800MHz	NA	28.6	NA
16 threads	T4160	T4161	
1500MHz	35.1	30.3	14%
1667MHz	43.5	35.3	19%
1800MHz	45.0	36.2	20%
24 threads	T4240	T4241	
1500MHz	42.0	37.5	11%
1667MHz	52.0	43.7	16%
1800MHz	54.0	45.1	16%

REASON FOR CHANGE

The new T4xx1 part numbers are being offered so customers have the option take advantage of lower power variants.

ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

There is no change to form, fit or function. T4xx1 and T4xx0 are functionally and electrically identical to each other, except that T4xx1 has a lower power.

NOTE:

THE CHANGE(S) SPECIFIED IN THIS NOTIFICATION WILL BE IMPLEMENTED ON THE EFFECTIVE DATE LISTED ABOVE. To request further data or inquire about the notification, please enter a [Support Case](#). Be aware that after you select this link to enter your request, you must choose the topic "Product Change Notification" once on the Salesforce page.

For sample inquiries - please go to www.nxp.com

QUAL DATA AVAILABILITY DATE: 24-May-2016

QUALIFICATION STATUS: N/A

QUALIFICATION PLAN:

N/A

RELIABILITY DATA SUMMARY:

N/A

ELECTRICAL CHARACTERISTIC SUMMARY:

N/A

CHANGED PART IDENTIFICATION:

N/A

SAMPLE AVAILABILITY DATE: 23-May-2016

ATTACHMENT(S):

External attachment(s) FOR this notification can be viewed AT:

[17192_introducing_low_power_T4xx1_PB.pdf](#)
