

Advance Information

MPC8245TZUPNS/D
Rev. 0, 3/2002

MPC8245 Part Number
Specification for the
XPC8245TZUnnx Series



Motorola Part Numbers Affected:

XPC8245TZU266B
XPC8245TZU300B
XPC8245TZU333B
XPC8245TZU350B

This document describes part-number-specific changes to recommended operating conditions and revised electrical specifications, as applicable, from those described in the general *MPC8245 Integrated Processor Hardware Specifications* (order # MPC8245EC/D).

Specifications provided in this document supersede those in the *MPC8245 Integrated Processor Hardware Specifications*, Rev.0.5 or later, for the part numbers listed in Table A only. Specifications not addressed herein are unchanged. Because this document is frequently updated, refer to <http://www.motorola.com/semiconductors> or to your Motorola sales office for the latest version.

Note that headings and table numbers in this document are not consecutively numbered. They are intended to correspond to the heading or table affected in the general hardware specification.

Part numbers addressed in this document are listed in Table A. For more detailed ordering information see Section 1.9, "Ordering Information."

Table A. Part Numbers Addressed by this Data Sheet

Motorola Part Number	Operating Conditions			Significant Differences from Hardware Specification
	CPU Frequency	V _{DD}	T _J (°C)	
XPC8245TZU266B	266 MHz	1.8/2.0 ± 100 mV	-40 to 105	Extended Temperature range for additional part offering
XPC8245TZU300B	300 MHz	1.8/2.0 ± 100 mV	-40 to 105	Extended Temperature range for additional part offering
XPC8245TZU333B	333 MHz	2.0 ± 100 mV	-40 to 105	Extended Temperature range for additional part offering
XPC8245TZU350B	350 MHz	2.0 ± 100 mV	-40 to 105	Extended Temperature range for additional part offering

Note: The X prefix in a Motorola part number designates a "Pilot Production Prototype" as defined by Motorola SOP 3-13. These are from a limited production volume of prototypes manufactured, tested, and Q.A. inspected on a qualified technology to simulate normal production. These parts have only preliminary reliability and characterization data. Before pilot production prototypes may be shipped, written authorization from the customer must be on file in the applicable sales office acknowledging the qualification status and the fact that product changes may still occur while shipping pilot production prototypes.

1.4.1.2 DC Electrical Characteristics

Table 2 provides the recommended operating conditions for the MPC8245 part numbers described herein.

Table 2. Recommended Operating Conditions

Characteristic	Symbol	Recommended Value	Unit
Die-junction temperature	T_j	-40 to 105	°C

Note: These are the recommended and tested operating conditions. Proper device operation outside of these conditions is not guaranteed.

Please consult the *MPC8245 Integrated Processor Hardware Specifications* document for more details concerning the part's specifications.

1.9 Ordering Information

This section provides the part numbering nomenclature for the MPC8245. Note that the individual part numbers correspond to a maximum processor core frequency. For available frequencies, contact your local Motorola sales office.

Figure 33 provides the Motorola part numbering nomenclature for the MPC8245. In addition to the processor frequency, the part numbering scheme also consists of an application modifier. The application modifier may specify special application conditions such as specific temperature or voltage ranges. Each part number also contains a revision code. This refers to the die mask revision number and is specified in the part numbering scheme for identification purposes only.

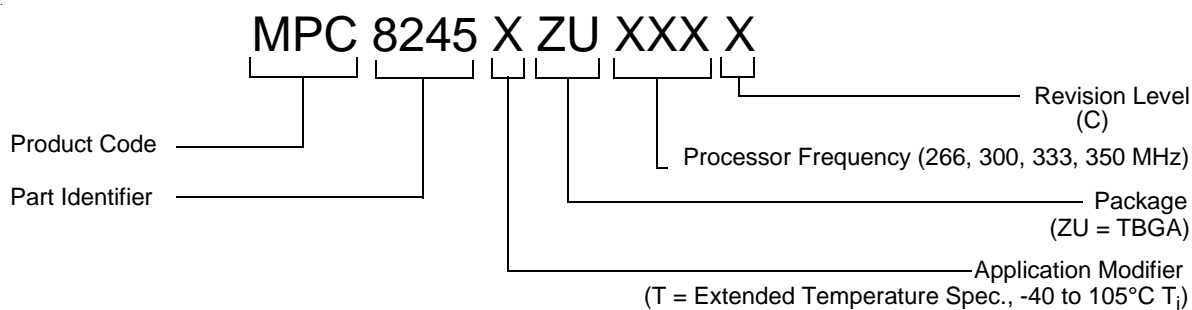


Figure 33. Motorola Part Number Key

HOW TO REACH US:

USA/EUROPE/LOCATIONS NOT LISTED:

Motorola Literature Distribution;
P.O. Box 5405, Denver, Colorado 80217
1-303-675-2140 or 1-800-441-2447

JAPAN:

Motorola Japan Ltd.; SPS, Technical Information Center,
3-20-1, Minami-Azabu Minato-ku, Tokyo 106-8573 Japan
81-3-3440-3569

ASIA/PACIFIC:

Motorola Semiconductors H.K. Ltd.; Silicon Harbour
Centre, 2 Dai King Street, Tai Po Industrial Estate,
Tai Po, N.T., Hong Kong
852-26668334

TECHNICAL INFORMATION CENTER:

1-800-521-6274

HOME PAGE:

<http://www.motorola.com/semiconductors>

DOCUMENT COMMENTS:

FAX (512) 933-2625,
Attn: RISC Applications Engineering

Information in this document is provided solely to enable system and software implementers to use Motorola products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits or integrated circuits based on the information in this document.

Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Motorola data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part.



Motorola and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. digital dna is a trademark of Motorola, Inc. All other product or service names are the property of their respective owners. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

© Motorola, Inc. 2001

MPC8245TZUPNS/D

MOTOROLA

Semiconductor Products Sector
Issuing Division: NETWORK & COMM SYS DIV (NB)

PRODUCT AND PROCESS CHANGE NOTIFICATION Generic Copy

18-OCT-2002

Subject: MOTOROLA PRODUCT AND PROCESS CHANGE NOTIFICATION 8141
TITLE:

XPC8241/XPC8245 REV D ANNOUNCEMENT

EFFECTIVE DATE: 26-Jan-2003

AFFECTED CHANGE CATEGORIES

- DEVICE SPECIFICATION / ERRATA

AFFECTED PRODUCT DIVISIONS

- WIRELESS COMMUNICATIONS DIV (VC)
- ADVANCED VEHICLE SYS DIV (JB)
- WIRELESS INFRASTRCT SYS DIV (NH)
- BODY ELECT, OCCUPANT SAFETY (JD)
- RF/IF DIV (VW)
- CPD- COMPUTING PLATFORM DIVISION (NR)
- SMARTMOS PROD TECH CTR (JS)
- DRIVER INFORMATION DIVISION (JI)
- NETWORK & COMM SYS DIV (NB)
- BRD. AND ENT. DIVISION BESD (VE)

ADDITIONAL RELIABILITY DATA: Available

REFERENCE: Contact Sales Office (R16396)

Contact your local Motorola Sales Office.

SAMPLES: Contact Local Sales Office

REFERENCE: Contact Sales Office ()

Contact your local Motorola Sales Office.

For any questions concerning this notification:

REFERENCE: Contact Sales Office (JOEY TSAI)

DISCLAIMER

DISCLAIMER:

MOTOROLA WILL CONSIDER THIS CHANGE APPROVED UNLESS SPECIFIC CONDITIONS OF ACCEPTANCE ARE PROVIDED IN WRITING WITHIN 30 DAYS OF RECEIPT OF THIS NOTICE. TO DO SO, CONTACT YOUR LOCAL MOTOROLA SALES OFFICE.

DO NOT REPLY TO THIS MESSAGE.

GPCN FORMAT: CUSTOMER

DESCRIPTION AND PURPOSE

Motorola is pleased to announce the introduction of a new mask revision for the XPC8241 and XPC8245 product line. The new mask revision, W04K78P, is fabricated at MOS13, a Motorola fabrication facility in Austin, Texas. Shipment of the products using this new mask will begin in March 2003.

The W04K78P mask revision (Rev D XPC8245/XPC8241, i.e. XPC8245LZU266D) is designed to replace the W02K78P (Rev B, i.e. XPC8245LZU266B) mask revision. The XPC8245/XPC8241 Rev B device, W04K78P, will be phased out in March 2003 and no longer produced.

The Rev D XPC8245/XPC8241 is a drop in replacement for the rev B XPC8245/XPC8241 device. This means that no circuit board modification are necessary if converting from the Rev B device. For a description of the errata fixes between the W04K78P and W02K78P masksets, please contact our local sales office, local distributor or visit the MPC8245 Product Summary Page at our Motorola website <http://www.motorola.com>

QUALIFICATION PLAN

See reliability report

RELIABILITY DATA SUMMARY

High Temp Operating Life (2.6V, 125C)

0 / 80 at 196 Hours

ESD - Human Body Model

0/3 at 2KV

ESD - Machine Model

0/3 at 200V

ESD - Charged Device Model

0/3 at 500V

Latch-up

0/3 at 200mA

ELECTRICAL CHARACTERISTIC SUMMARY

Units were characterized from initial lot and determined to have no electrical differences (timing/levels) from rev B materials

CHANGED PART IDENTIFICATION

XPC8245/XPC8241 products built with the Rev D mask, W04K78P, will have a "D" suffix at the end of the device number (XPC8245LZU266D and XPC8241LZP200D), as opposed to the "B" suffix for the W02K78P mask product (XPC8245LZU266B and XPC8241LZP200B). Also, the device marking will contain "4K78P" as the mask revision. All other marking on the device will remain unchanged.

AFFECTED DEVICE LIST

PART

XPC8241LZP166B

XPC8241TZP166B

XPC8245LZU266B

XPC8245LZU300B

XPC8245LZU333B

XPC8245LZU350B

XPC8245RZU400B

XPC8245TZU266B

XPC8245TZU300B

XPC8245TZU333B

XPC8245TZU350B