ERRATA PMC-990537 PMC-Sierra, Inc.

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

PM7346 S/UNI-QJET

PM7346

S/UNI-QJET

SATURN USER NETWORK INTERFACE (QJET)

ERRATA

ISSUE1 JUNE 1999

PROPRIETARY AND CONFIDENTIAL TO PMC-SIERRA, INC., AND FOR ITS CUSTOMERS' INTERNAL USE



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REVISION HISTORY

| lssue No. | Issue Date | Details of Change |
|--------------|------------|---|
| 1 | June 1999 | This document contains errata information corresponding to the issue 5 datasheet. |



PM7346 S/UNI-QJET

ERRATA PMC-990537

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

CONTENTS

| 1 | ISSUI | E 1 ERRATA | . 1 |
|---|-------|------------------------------------|-----|
| | 1.1 | DEVICE IDENTIFICATION | . 1 |
| 2 | SOFT | WARE RESET REQUIRED AFTER POWER UP | 2 |

ERRATA PMC-990537



PM7346 S/UNI-QJET

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

1 ISSUE 1 ERRATA

This issue 1 contains errata applied to the PMC-960835 S/UNI-QJET Issue 5 datasheet. The issue 5 datasheet and issue 1 errata supersede all prior editions and versions.

1.1 Device Identification

The information contains in this document applies to the PM7346 S/UNI-QJET revision E. The device revision code is marked at the end of the Wafer Batch Code on the face of the device (as shown in Figure 1). PM7346 S/UNI-QJET revision E is packaged in a 256 pin Super BGA package.

Pin A1 PMC Logo Index Mark S/UNI-QJET Logo <u>-1</u>V TM S/UNI-QJET Part Number Wafer Batch Code PM7346-BI Assembly Date Code С E Myyww **TOP VIEW SCALE : 2:1** (APPROX.)

Figure 1: PM7346 S/UNI-QJET Branding Format

ERRATA PMC-990537

S/UNI-QJET DATASHEET ERRATA

2 SOFTWARE RESET REQUIRED AFTER POWER UP

ISSUE 1

After hardware reset the S/UNI-QJET needs a software reset to reduce power consumption. This problem has no implications to the functionality of the part except for excessive power consumption and resulting excess heat dissipation.

Software initialization sequence:

A modification to the software initialization sequence used will guarantee that the S/UNI QJET operates with normal power consumption.

The sequence below will set the all the RAM in the QJET to a low power state.

1. Reset the S/UNI QJET.

2. Set IOTST (bit 2) in the Master Test Register (datasheet pg. 291) to '1' (by writing 00000100 to register 400H).

- Put the QJET Receive Cell Processor (RXCP) into test mode by writing: 00000101 to test register 461H 00000101 to test register 561H 00000101 to test register 661H 00000101 to test register 761H
- 4. Set QJET Receive Cell Processor block built in self-test (BIST) controls signals by writing: 01000000 to test register 462H 01000000 to test register 562H 01000000 to test register 662H 01000000 to test register 762H

10101010 to test register 463H 10101010 to test register 563H 10101010 to test register 663H 10101010 to test register 763H

- Put the QJET Transmit Cell Processor (TXCP) into test mode by writing: 00000011 to test register 481H 00000011 to test register 581H 00000011 to test register 681H 00000011 to test register 781H
- 6. Set QJET Transmit Cell Processor block built in self-test (BIST) controls signals by writing: 10000000 to test register 480H 10000000 to test register 580H 10000000 to test register 680H

ERRATA PMC-990537 PMC-Sierra, Inc.

PM7346 S/UNI-QJET

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

10000000 to test register 780H

10101010 to test register 482H 10101010 to test register 582H 10101010 to test register 682H 10101010 to test register 782H

7. Toggle REF8KI (pin T3, datasheet page 29) signal several times (this provides the clock to the RAM). REF8KI is the test clock used by the TXCP and RXCP blocks when in test mode.

8. Set IOTST (bit 2) in the Master Test register (datasheet pg. 291) to '0' (by writing 00000000 to register 400H).

This sequence will correct the excess power consumption of the internal RAM.

Performance without software sequence:

Failure to run this sequence will result in excess power consumption and a degraded long term reliability. Therefore, it is critical that the above software fix be implemented.

ERRATA PMC-990537



PM7346 S/UNI-QJET

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

NOTES

ERRATA PMC-990537 PMC-Sierra, Inc.

PM7346 S/UNI-QJET

ISSUE 1

S/UNI-QJET DATASHEET ERRATA

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