

Ethernet and ATM Termination Type F RAM Package Release 0.1.0

General

This release note documents differences between the *QUICC Engine Block Reference Manual with Protocol Interworking*, QEIWRM, Rev. 3, and the features which are available for this device using the provided microcode RAM packages. This document covers any exceptions to the features which are specified in this release of the specification. The note also describes additions or missing functionality in comparison to the specification.

The user should closely follow the instructions specified in the QE_Ucode_Loader file provided in the package in relation to the header files containing the code. These instructions assure proper operation and activation of the right features in the code.

Refer to the *QUICC Engine Microcode Errata* for all known issues related to this and other microcode packages.

This package is based on PPP and ATM termination Type C RAM package Release 1.4.0 and includes all ATM and Ethernet functionality. PPP and ESS7 functionality is not supported in this package. This package includes the following core blocks: Ethernet, IP Fragmentation, ATM, IMA, and Serial ATM. [Table 3](#) describes features of these core blocks that are not supported in this package.

Availability

The table below shows the currently available packages by device.

Table 1. Package Availability by Device

| Device | Loader file name (.h) |
|---------------------------------|------------------------------|
| MPC8360 rev 2.1 | iw_aet_type_f_mpc8360_r2.1.h |
| MPC8568 rev 1.1 | iw_aet_type_f_mpc8568_r1.1.h |

Package Content

Figure 1. Features Supported in the Package

| |
|---------------------------------|
| Ethernet Termination |
| Ethernet Hierarchical Scheduler |
| ATM Termination |
| IMA |
| IP Fragmentation |
| 1588V2 |

The tables below designate the content of this package. The baseline is the *QUICC Engine Block Reference Manual with Protocol Interworking*, QEIWRM, Rev. 3. The tables below show additional features and features which are not supported. For the specification of additional features, which are not described in the *QUICC Engine Block Reference Manual with Protocol Interworking*, QEIWRM, Rev. 3, please contact Freescale support. Contact information may be found at www.freescale.com.

Table 2. New Features (Which are Not Described in QEIWRM, Rev. 3)

| Feature | Comments |
|---------------------------|--|
| IEEE 1588 Tx Acceleration | There were some definition updates compared to the feature's description in QEIWRM, Rev. 3.0.1 |

Table 3. Removed Features (Described in QEIWRM, Rev. 3 but Not Supported)

| Feature | Comments | QEIWRM, Rev. 3. |
|--|---|---|
| Expanded Hash Table | | Section 30.5.3.3.1 "Table Lookup Four Way Hash PCD" |
| VLAN Specific Header Manipulation Command Descriptor | | Section 31.1.11.2 "VLAN Specific Header Manipulation Command Descriptor" |
| AAL2 CID MUX | | Section 12.3.1.2 "CID Multiplexing" |
| CAM Emulation Lookup Table (CELUT) for LookupKey Size of 2 Bytes | | Section 30.5.3.1.1 "CAM Emulation Lookup Table (CELUT) for LookupKey Size of 2 Bytes" |
| Ethernet Ethernet IW | This package does not include Ethernet Ethernet interworking. | |
| ATM Ethernet IW | This package does not include ATM Ethernet interworking. | |
| PPP Ethernet IW | This package does not include PPP Ethernet interworking. | |

Table 3. Removed Features (Described in QEIWRM, Rev. 3 but Not Supported) (continued)

| Feature | Comments | QEIWRM, Rev. 3. |
|--|----------|--|
| Auto VP on/off mode of GCRA VP shaping (GCRA over GCRA) scheduler. | | Section 11.2.12.3 “GCRA VP Shaping—GCRA over APC or GCRA over GCRA” |
| MCC INIT Middle Host commands | | Section 22.3, “MCC Commands” |

Revision History

Table 4. Revision History for Release 0.1.0

| Release Date: Sept 07, 2010 Revision Register Number: 0xBEA0F010 | |
|---|--|
| New Features | IEEE1588 Tx Acceleration |
| Removed Features | None |
| Bug Fixes | Possible Channel loss for ATM APC scheduler when issuing ATM transmit Host Command (Errata ID: ATM5) |
| | Ethernet Transmitter out of ACK2 synchronization (Errata ID: Eth4) |
| | In 1588V2 parsing, the IP protocol type (UDP) is not checked (Errata ID: Eth5) |

Table 5. Revision History for Release 0.0.1

| Release Date: June 21, 2010 Revision Register Number: 0xBAE10000 | |
|---|------|
| New Features | None |
| Removed Features | None |
| Bug Fixes | None |

Table 6. Revision History for Release 0.0.0

| Release Date: May 11, 2009 Revision Register Number: 0xBEA0F000 | |
|--|--|
| New Features | New mode to support up to 64K RxQDs in ATM AAL2. |
| Removed Features | None |
| Bug Fixes | None |

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