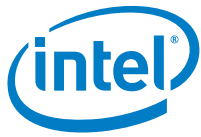# Intel®82579LM/82579V Gigabit Network Connection

Specification Update

Networking Division (ND)
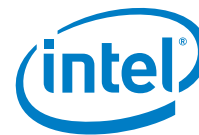
March 2017

Revision 1.1
335553-002

Revision History

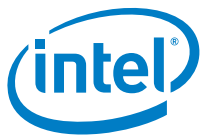| Revision	Date	Comments
1.1	March 2017	Updated erratum #1 workaround.
1.0	February 2017	Initial release (Intel Public)

1.0 Introduction

This document applies to:

- 2nd Generation Intel® Core™ (only i5 and i7) with Mobile Intel® QM67/Q67 Express Chipsets
  — Intel® 82579LM/82579V Gigabit Network Connection
    - Device IDs: 8086: 1502 and 8086: 1503

- 3rd Generation Intel® Core™ (only i5 and i7) with Mobile Intel® QM77/Q77 Express Chipsets
  — Intel® 82579LM/82579V Gigabit Network Connection
    - Device IDs: 8086: 1502 and 8086: 1503

- 4th Generation Intel® Core™ (only i5 and i7) Processors with Intel® QM88/Q87 Express Chipsets
  — Intel® Ethernet Network Connection I217-LM
  — Intel® Ethernet Network Connection I217-V
  — Intel® Ethernet Network Connection I218-LM
  — Intel® Ethernet Network Connection I218-V

This document is an update to a published specification, the *Intel® Ethernet Controller 82579LM*, *Intel® Ethernet Controller I217* and *Intel® Ethernet Controller I218 Datasheets*. It is intended for use by system manufacturers and software developers. All product documents are subject to frequent revision, and new order numbers will apply. New documents might be added. Be sure you have the latest information before finalizing your design.

1.1 Nomenclature Used in This Document

This document uses specific terms, codes, and abbreviations to describe changes, errata, sightings and/or clarifications that apply to silicon/steppings. See Table 1-1 for a description.

Table 1-1   Nomenclature

Name	Description
Specification Clarifications	Greater detail or further highlights concerning a specification's impact to a complex design situation. These clarifications will be incorporated in the next release of the specifications.
Specification Changes	Modifications to the current published specifications. These changes will be incorporated in the next release of the specifications.
Errata	Design defects or errors. Errata may cause device behavior to deviate from published specifications. Hardware and software designed to be used with any given stepping must assume that all errata documented for that stepping are present on all devices.
Software Clarifications	Applies to Intel drivers, EEPROM loads.
Documentation Changes	Typos, errors, or omissions from the current published specifications. These changes will be incorporated in the next release of the specifications.
A0, B0, etc.	Stepping to which the status applies.
Doc	Document change or update that will be implemented.
Fix	This erratum is intended to be fixed in a future stepping of the component.
Fixed	This erratum has been previously fixed.
NoFix	There are no plans to fix this erratum.
Eval	Plans to fix this erratum are under evaluation.

2.0 Hardware Clarifications, Changes, Updates and Errata

See Section 1.1 for an explanation of terms, codes, and abbreviations.

Table 2-1   Summary of Specification Clarifications

Specification Clarification	Status
None	N/A

Table 2-2   Summary of Specification Changes

Specification Change	Status
None	N/A

Table 2-3   Summary of Documentation Updates

Specification Change	Status
None	N/A

Table 2-4   Summary of Errata; Errata Include Steppings
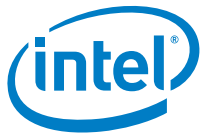
Erratum	Status
1. Functional Level Reset (FLR)	B0=Yes; NoFix

2.1 Specification Clarifications

None.

2.2 Specification Changes

None.

2.3   Documentation Updates

None.

2.4   Errata

1.   Functional Level Reset (FLR)

Problem:

The 82579LM/82579V advertise by default a Function Level Reset (FLR) capability in their PCI configuration space. When FLR is triggered, the 82579LM/82579V might lose synchronization between the integrated Media Access Controller (MAC) and the external Physical Layer (PHY), from which it cannot recover.

Implication:

Using the FLR mechanism can cause network adapter hang and in some cases can lead to system instability.

Workaround:

Operating systems won't support FLR for 82579 devices.

Status: NoFix

- 2nd Generation Intel® Core™ (only i5 and i7) with Mobile Intel® QM67/Q67 Express Chipset
- 3rd Generation Intel® Core™ (only i5 and i7) with Mobile Intel® QM77/Q77 Express Chipsets
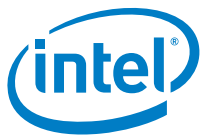
Status: Fixed

- 4th Generation Intel® Core™ (only i5 and i7) Processors with Intel® QM88/Q87 Express Chipsets

3.0 Software Clarifications

Table 3-1 **Summary of Software Clarifications**

Software Clarification	Status
None	N/A

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