

Intel<sup>®</sup> Embedded Media and Graphics Driver v36.15.0 (32-bit) & v37.15.0 (64-bit) for Intel<sup>®</sup> Atom™ Processor E3800 Product Family/Intel<sup>®</sup> Celeron<sup>®</sup> Processor N2920/J1900 Windows\* Release

**Specification Update** 

January 2014

**Notice:** The Intel<sup>®</sup> Embedded Media and Graphics Drivers may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Document Number: 541908-002US



INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

A "Mission Critical Application" is any application in which failure of the Intel Product could result, directly or indirectly, in personal injury or death. SHOULD YOU PURCHASE OR USE INTEL'S PRODUCTS FOR ANY SUCH MISSION CRITICAL APPLICATION, YOU SHALL INDEMNIFY AND HOLD INTEL AND ITS SUBSIDIARIES, SUBCONTRACTORS AND AFFILLATES, AND THE DIRECTORS, OFFICERS, AND EMPLOYEES OF EACH, HARMLESS AGAINST ALL CLAIMS COSTS, DAMAGES, AND EXPENSES AND REASONABLE ATTORNEYS' FEES ARISING OUT OF, DIRECTLY OR INDIRECTLY, ANY CLAIM OF PRODUCT LIABILITY, PERSONAL INJURY, OR DEATH ARISING IN ANY WAY OUT OF SUCH MISSION CRITICAL APPLICATION, WHETHER OR NOT INTEL OR ITS SUBCONTRACTOR WAS NEGLIGENT IN THE DESIGN, MANUFACTURE, OR WARNING OF THE INTEL PRODUCT OR ANY OF ITS PARTS.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or go to: http://www.intel.com/design/literature.htm

Intel, the Intel logo, and Intel Atom are trademarks of Intel Corporation in the U.S. and/or other countries.

\*Other names and brands may be claimed as the property of others.

Copyright © 2014, Intel Corporation. All rights reserved.

January 2014



## Contents

	Revision History	4
	Introduction	5
	Purpose/Scope/Audience	5
	Conventions and Terminology	
	Summary Tables of Current Product Issue Activity	7
	Errata	8
Tabl		
1	Affected Documents, Related Documents, and Reference Information	
2	Conventions and Terminology	
3	Summary Tables Legend	7
4	Errata for Intel <sup>®</sup> EMGD v36.15.0 (32-bit) & 37.15.0 (64-bit) for Intel <sup>®</sup> Atom™ Processor F3800 Product Family/Intel <sup>®</sup> Celeron <sup>®</sup> Processor N2920/J1900	



## **Revision History**

Date	Revision	Description
January 2014	002	Intel <sup>®</sup> Embedded Media and Graphics Driver for Intel <sup>®</sup> Atom <sup>™</sup> Processor E3800 Product Family/Intel <sup>®</sup> Celeron <sup>®</sup> Processor N2920/J1900 Version 36.15.0.1064 (32-bit) & 37.15.0.1064 (64-bit) release
December 2013	001	Initial release for the Intel <sup>®</sup> Embedded Media and Graphics Driver for Intel <sup>®</sup> Atom <sup>™</sup> Processor E3800 Product Family/Intel <sup>®</sup> Celeron <sup>®</sup> Processor N2920/J1900 Version 36.15.0 (32-bit) & 37.15.0 (64-bit)



## Introduction

Intel<sup>®</sup> Embedded Media and Graphics Driver (Intel<sup>®</sup> EMGD) is a graphics driver for the Windows\* 7 operating system environment designed to meet the requirements of embedded applications. The drivers run on the following Embedded Intel<sup>®</sup> Architecture (eIA) chipsets:

 Intel<sup>®</sup> Atom<sup>™</sup> Processor E3800 Product Family/Intel<sup>®</sup> Celeron<sup>®</sup> Processor N2920/J1900

Intel® EMGD is designed to work with fixed-function systems, such as In-vehicle Infotainment (IVI) devices, Point-of-Sale (POS) devices, ATMs, gaming devices, etc. It can be configured to work with various hardware and software systems.

The Intel Embedded Graphics Driver consists of both the Intel® EMGD graphics driver and firmware component. These two components are configurable and work together to provide a wide range of features.

Please refer to the  $Intel^{@}$  Embedded Media and Graphics Driver v36.15.0 (32-bit) & v37.15.0 (64-bit) BETA for  $Intel^{@}$  Atom $^{\text{TM}}$  Processor E3800 Product Family/Intel $^{@}$  Celeron $^{@}$  Processor N2920/J1900 Windows \* Release and Readme.txt in the software package for a detailed description of the supported features and display devices.

### Purpose/Scope/Audience

This document is a compilation of Errata. It is intended for those who need to work with the graphics subsystem. This includes, but is not limited to: platform designers, system BIOS developers, system integrators, original equipment manufacturers (OEMs), system control application developers, as well as end users.

This document may also contain information that was not previously published.

This document provides information on open errata in all supported Intel<sup>®</sup> EMGD packages for version 36.15.0 (32-bit) & 37.15.0 (64-bit) of the Intel® EMGD product. It includes information on the following packages:

- Windows\*7 32-bit
- Windows\*7 64-bit
- GOP

January 2014 Specification Update Document Number: 541908-002US



#### Table 1. Affected Documents, Related Documents, and Reference Information

Title	Number
Intel <sup>®</sup> Embedded Media and Graphics Driver v36.15.0 (32-bit) & v37.15.0 (64-bit) BETA for Intel <sup>®</sup> Atom™ Processor E3800 Product Family/Intel <sup>®</sup> Celeron <sup>®</sup> Processor N2920/J1900 Windows* Release User Guide	541234
Intel <sup>®</sup> System Controller Hub (Intel <sup>®</sup> SCH)	319537
Display Panel Debugging with the Intel Graphics Memory Controller Hub	305964
Intel <sup>®</sup> Embedded Media and Graphics Driver for Intel <sup>®</sup> Atom™ Processor E3800 Product Family/Intel <sup>®</sup> Celeron <sup>®</sup> Processor N2920/J1900 Technical Product Specification (TPS)	TBD
Framebuffer Overlay Blending Configuration and Proof of Concept with Intel <sup>®</sup> EMGD White Paper	324707

## **Conventions and Terminology**

#### Table 2. Conventions and Terminology

Term	Definition
Errata (plural) Erratum (singular)	Errata are design defects or errors. These may cause the Intel <sup>®</sup> Embedded Media and Graphics Driver' behavior to deviate from published specifications. Hardware and software designed to be used with any given release must assume that all errata documented for that release are present on all devices.



## **Summary Tables of Current Product Issue Activity**

Table 4 shows the Errata that apply to the  $Intel^{\circledR}$  EMGD product. Intel may fix some of the Errata in a future release of the software as noted in Table 3. Table 4 uses the codes listed in Table 3.

#### Table 3. **Summary Tables Legend**

Status Indicator	Column	Definition		
х	Driver Version	Indicates that an erratum e <b>X</b> ists		
Plan Fix	Status	This erratum may be fixed in a future release.		
Fixed	Status	This erratum has been previously fixed.		
No Fix	Status	There are no plans to fix this erratum.		
TBD	Status	This erratum still under investigation. Status to be determined.		

A change bar to the left of a table row indicates an item that is either new or modified from the previous version of this Specification Update.

#### Errata for Intel<sup>®</sup> EMGD v36.15.0 (32-bit) & 37.15.0 (64-bit) for Intel<sup>®</sup> Atom™ Processor E3800 Product Family/Intel<sup>®</sup> Celeron<sup>®</sup> Processor N2920/J1900 Table 4. (Sheet 1 of 2)

ID	Impacted Platform	Package	Errata	Status
206057	Atom E3800/Celeron N2920/J1900	Windows 7	GLSL failures.	TBD
206058	Atom E3800/Celeron N2920/J1900	Windows 7	GLSL failures.	TBD
206231	Atom E3800/Celeron N2920/J1900	Windows 7	Advanced HDMI features not available in CUI.	TBD
206236	Atom E3800/Celeron N2920/J1900	Windows 7	Changing gamma value for one color does not disable changing gamma for all colors at once.	TBD
206252	Atom E3800/Celeron N2920/J1900	Windows 7	NLAS settings are not being applied to full screen media surfaces.	TBD
206255	Atom E3800/Celeron N2920/J1900	Windows 7	Noise in video using Motion Comp Deinterlacing on HD streams.	TBD
206256	Atom E3800/Celeron N2920/J1900	Windows 7	EDID-less DVI monitor not detected by the driver.	TBD

Intel® Embedded Media and Graphics Driver v36.15.0 (32-bit) & v37.15.0 (64-bit) Specification Update January 2014



# Table 4. Errata for Intel<sup>®</sup> EMGD v36.15.0 (32-bit) & 37.15.0 (64-bit) for Intel<sup>®</sup> Atom<sup>™</sup> Processor E3800 Product Family/Intel<sup>®</sup> Celeron<sup>®</sup> Processor N2920/J1900 (Sheet 2 of 2)

ID	Impacted Platform	Package	Errata	Status
206257	Atom E3800/Celeron N2920/J1900	Windows 7	Display ID has not been detected by the driver.	TBD
206259	Atom E3800/Celeron N2920/J1900	Windows 7	Removal of display combination in BMP Tool does not work.	TBD
206260	Atom E3800/Celeron N2920/J1900	Windows 7	Mode removal table does not work in BMP tool.	TBD



#### **Errata**

1. GLSL failures.

Reference #: 206057 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: **TBD** 

2. GLSL failures.

Reference #: 206058 Driver: **Graphics** 

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7 Resolution: None. Status: **TBD** 

3. Advanced HDMI features not available in CUI.

Reference #: 206231 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status:

4. Changing gamma value for one color does not disable changing

gamma for all colors at once.

Reference #: 206236 Driver: Graphics

Atom E3800/Celeron N2920/J1900 Platform:

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: **TBD** 

January 2014 Specification Update Document Number: 541908-002US



5. NLAS settings are not being applied to full screen media surfaces.

Reference #: 206252 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD

6. Noise in video using Motion Comp Deinterlacing on HD streams.

Reference #: 206255
Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD

7. EDID-less DVI monitor not detected by the driver.

Reference #: 206256 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD

8. Display ID has not been detected by the driver.

Reference #: 206257 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD

9. Removal of display combination in BMP Tool does not work.

Reference #: 206259 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD



Mode removal table does not work in BMP tool. 10.

Reference #: 206260 Driver: Graphics

Platform: Atom E3800/Celeron N2920/J1900

Package: Windows 7

Resolution: This issue is under investigation and there is no planned workaround at this time.

Status: TBD

Intel® Embedded Media and Graphics Driver v36.15.0 (32-bit) & v37.15.0 (64-bit) Specification Update 11 January 2014 Document Number: 541908-002US



## Issues Closed in Version 36.15.0 (32-bit) & 37.15.0 (64-bit)

Issues that have been either resolved or for some other reason are no longer considered open in the current software version are included here.

#### Table 5. Resolved Issues

ID	Impacted Platform	Package	Errata	Status
205864	Atom E3800/Celeron N2920/J1900	Windows 7	Incorrect eDP configurations on LFP1 and LFP2 in BMP tool.	Fixed
206194	Atom E3800/Celeron N2920/J1900	Windows 7	Screen blank and no system response (keyboard and mouse) when doing mode switch with eDP display and other display.	Fixed

