



IOTG

Intel® Atom™ Processor E3800 Series,  
Intel® Celeron® Processor N2000 Series for Mobile, and  
Intel® Celeron® Processor J1000 Series for Desktop  
Graphics Driver Options for Windows Embedded 7\* Solutions

WW32

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# Intel® Embedded Media and Graphics Driver (Intel® EMGD) vs. Intel® HD Graphics Driver

## What is Intel® Embedded Media and Graphics Driver (Intel® EMGD)?

- Graphics driver intended specifically for Embedded Customers using x86/x64 Windows\* 7

### Ideal end-user/use case

- Embedded solutions, such as point of sale, vending, digital signage, industrial systems, etc.

## What is Intel® HD Graphics Driver?

- Graphics driver intended for client SKUs using x64 Windows\* 7

### Ideal end-user/use case

- Client SKUs for laptop, desktop usage models

# Internet of Things Group (IOTG) Supported SKU Matrix

M/D/I	I-Industrial				M-Mobile		D-Desktop	
Processor Model	Intel® Atom™ E3845	Intel® Atom™ E3827	Intel® Atom™ E3826	Intel® Atom™ E3825	Intel® Atom™ E3815	Intel® Celeron® N2930	Intel® Celeron® N2807	Intel® Celeron® J1900
Intel® EMGD	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported
Intel® HD Graphics Driver	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported <sup>^</sup>	Not Supported <sup>^</sup>	Not Supported <sup>^</sup>
<sup>^</sup> Intel® HD Graphics Driver works on Mobile and Desktop SKUs, but is not supported by IOTG.								

# Intel® EMGD vs. Intel® HD Graphics Driver

Feature	Intel® EMGD	Intel® HD Graphics Driver
M/D/I SKU Support	<b>Mobile/Desktop/Industrial</b>	Mobile/Desktop Only
x86/x64	<b>x86/x64 Supported</b>	x64 Only <sup>^</sup>
Max Display Resolution	HDMI/ DVI (1920x1080), DP1.1a (2560x1600), eDP (2560x1600), VGA (2560x1600)	HDMI/ DVI (1920x1080), DP1.1a (2560x1600), eDP (2560x1600), VGA (2560x1600)
Windows* Logo Compliant	<b>WHQL Validation Completed (not certified)</b>	Certified
Dual Independent Display	Yes	Yes
2D HW Acceleration	DirectDraw*	DirectDraw*
3D HW Acceleration	OGL4.0, DirectX* 11.1/10/9	OGL4.0, DirectX* 11.1/10/9
HW Media Acceleration	DXVA* 2	DXVA* 2
HW Video Decode	H.264, MPEG2, VC1, VP8	H.264, MPEG2, VC1, VP8
HW Video Encode†	H.264* MPEG2**	H.264* MPEG2**
Blueray*	N/A	N/A
Display Interfaces #	Intel® Display Audio HDMI 1.4a; DP 1.1a, eDP 1.3; VGA	Intel® Display Audio HDMI 1.4a; DP 1.1a, eDP 1.3; VGA
Media Players	PowerDVD* Windows* Media Player	PowerDVD* Windows* Media Player
Content Protection	HDCP	HDCP
<sup>^</sup> Only supported by PC Client Group. * Other names and brands can be claimed as property of others. * Entire encode pipeline fully supported. ** Encode pipeline partially supported † Supported only on Intel® Atom™ processor E3800 Series (formerly Bay Trail-I); for Intel® Celeron® processor N2000 Series and Intel® Celeron® processor J1000 Series (formerly Bay Trail-M/D) SKUs, only later than C0 and B3 Silicon stepping is supported. All features referenced above apply only to Windows* 7.		

# Making the Right Choice

- **Intel® EMGD** is the **recommended** Graphics driver solution for embedded customers using IOTG SKUs.
- Intel® HD Graphics Driver is not Plan of Record for IOTG designs and is not supported on IOTG SKUs.
- Contact your designated Application Engineer for any further clarification regarding Graphics Driver solutions for Intel Silicon. See the *IOTG – Bay Trail Dashboard* (Document Number: 522355) for further details about the IOTG Bay Trail Graphics support.

