

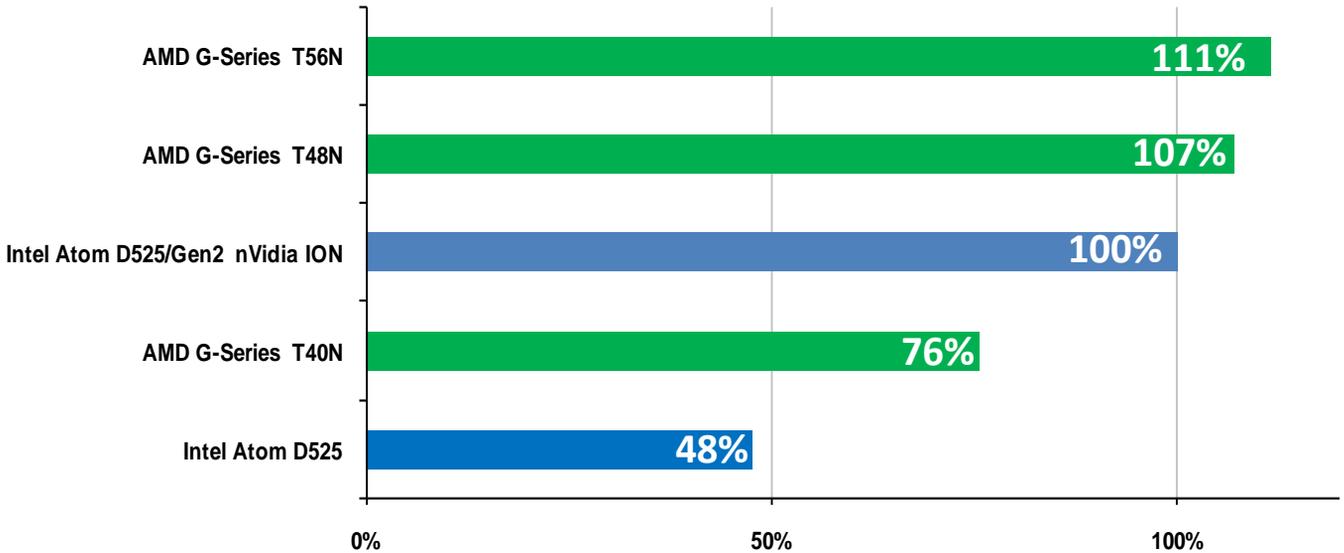


AMD EMBEDDED G-SERIES PLATFORM

# AMD G-Series T56N, T48N, and T40N APUs vs. Intel Atom D525 Processor for Embedded Applications

Satisfy the performance demands of your low power embedded applications with the AMD Embedded G-Series platform. The world's first embedded APU with a brand new low power x86 CPU core and advanced discrete class GPU in a single chip. These APUs offer outstanding performance and energy efficiency without compromising performance or compatibility.

## Outstanding Overall Performance



Performance benchmarks are the geometric mean of compiled data from the list of overall benchmark scores from the listed tests. The geometric mean of scores is normalized to the Intel Atom D525 processor with nVidia Generation 2 ION discrete graphics. Performance benchmark system configurations on next page.

## Features and Benefits

- Integration of APU reduces foot print, simplifies design, requiring fewer board layers, and a smaller power supply, further driving down system costs.
- The AMD G-Series platform delivers a 32% smaller footprint than the Atom D525+ION2, a 38% smaller footprint than the Intel Atom 400 and 500 series and a 12% smaller footprint than the Intel Atom E6xx series.<sup>1</sup>
- Advanced graphics processing with support for DirectX® 11 technology, OpenGL 4.0 and OpenCL™ in an integrated device provides the foundation to build the designs of tomorrow, today.
- AMD Virtualization™ technology helps virtualization software run securely and efficiently.
- Ideal for low power designs such as Digital Signage, Integrated Set-Top-Box (xSTB), IP-TV, Thin Client, Information Kiosk, Point-of-Service, and Casino Gaming markets.

1. 890 mm<sup>2</sup> vs. 1302 mm<sup>2</sup>, 1445 mm<sup>2</sup> and 1013 mm<sup>2</sup> respectively.



# System Configurations

## AMD Embedded G-Series (all SKUs) Processor System Configuration

### Operating System

Name: Windows® XP Professional  
Version: Service Pack 2  
Build: 2600  
DirectX® Version: DirectX® 9.0C

### Processor

AMD Embedded G-Series T56N  
AMD Embedded G-Series T48N  
AMD Embedded G-Series T40N

### Hardware

Motherboard: iBase M1955  
BIOS Info: 0ABVQ 0.11 x64  
Is BIOS Publicly Available: Yes  
North Bridge: Integrated on AMD Embedded G-Series  
Processor  
South Bridge: AMD A55E Controller Hub

### Memory

Manufacturer and Type: Crucial CT25664BA1339.M8FD  
Quantity & Size each: Qty (1) 2 GB SODIMM  
Total Memory Size: 2GB

### Hard Drive

x1  
Make and Model: Hitachi HTS725016A9A364  
Hard Drive Size: 160GB  
Transfer Mode: SATA 3.0Gbps, NTFS

### Network Card

Model Number: Integrated Realtek 10/100/1000

### Video Card

Graphics Adapter: Integrated on AMD Embedded G-Series  
Processor  
Memory Size and Type: 512MB, UMA

### Network Driver

Realtek 5.776.1111.2010

### Video Driver

AMD 8.792.0.0

### CPU Driver

Microsoft 5.1.2600.0

### Other

-Memory timings were unknown  
-Actual memory speed was 533MHz  
-(DDR3-1066)

## Intel Atom D525 (1.8GHz) Processor System Configuration

### Operating System

Name: Windows® XP Professional  
Version: Service Pack 2  
Build: 2600  
DirectX® Version: DirectX® 9.0C

### Processor

Intel Atom D525 Processor

### Hardware

Motherboard: MSI MS-A923  
BIOS Info: AA923UMS V2.10  
Is BIOS Publicly Available: Yes  
North Bridge: Integrated on Atom D525  
South Bridge: Intel NM10

### Memory

Manufacturer and Type: DDR3-800 Integrated on Platform  
Quantity & Size each: Qty (1) 1GB SODIMM  
Total Memory Size: 1GB

### Hard Drive

x1  
Make and Model: Western Digital  
Hard Drive Size: 160GB  
Transfer Mode: SATA 3.0Gbps, NTFS

### Network Card

Model Number: Integrated Realtek 10/100/1000

### Video Card

Graphics Adapter: Integrated on Atom D525  
Memory Size and Type: 256MB, UMA

### Network Driver

5.770.909.2010

### Audio Driver

5.10.0.6080

### Video Driver

6.14.10.5260

### CPU Driver

5.1.2600.0

### Other

-Memory timings were unknown  
-Actual memory speed was 400MHz  
-(DDR3-800)

## Intel Atom D525 (1.8GHz)/Gen2 ION Processor System Configuration

### Operating System

Name: Windows® XP Professional  
Version: Service Pack 2  
Build: 2600  
DirectX® Version: DirectX® 9.0C

### Processor

Intel Atom D525 Processor

### Hardware

Motherboard: Zotac ZBox  
BIOS Info: 1.0b 1060A000  
Is BIOS Publicly Available: Yes  
North Bridge: Integrated on Atom D525  
South Bridge: Intel NM10

### Memory

Manufacturer and Type: Samsung M470T5663EH3-CF7  
Quantity & Size each: Qty (1) 2GB SODIMM  
Total Memory Size: 2GB

### Hard Drive

x1  
Make and Model: Seagate  
Hard Drive Size: 250GB  
Transfer Mode: SATA 3.0Gbps, NTFS

### Network Card

Model Number: Integrated Intel 10/100/1000

### Video Card

Graphics Adapter: nVidia Gen2 ION  
Memory Size and Type: 512MB, UMA

### Network Driver

11.1.6.0

### Audio Driver

6.0.1.5845

### Video Driver

8.17.11.9745

### CPU Driver

5.1.2600.0

### Other

-Memory timings were unknown  
-Actual memory speed was 400MHz  
-(DDR2-800)

## Performance Benchmark Suite

- Futuremark 3DMark™06 v1.2.0
- POV Ray 3.7 Beta 23
- BAPCO® SYSmark® 2007 Preview Rating, v1.05.958

### DISCLAIMER

The information presented in this document is for informational purposes only and may contain technical inaccuracies, omissions and typographical errors. AMD reserves the right to revise this information and to make changes from time to time to the content hereof without obligation of AMD to notify any person of such revisions or changes.

AMD MAKES NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE CONTENTS HEREOF AND ASSUMES NO RESPONSIBILITY FOR ANY INACCURACIES, ERRORS OR OMISSIONS THAT MAY APPEAR IN THIS INFORMATION. AMD SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT WILL AMD BE LIABLE TO ANY PERSON FOR ANY DIRECT, INDIRECT, SPECIAL OR OTHER CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF ANY INFORMATION CONTAINED HEREIN, EVEN IF AMD IS EXPRESSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

©2011 Advanced Micro Devices, Inc. AMD, the AMD Arrow logo, AMD Virtualization, and combinations thereof are trademarks of Advanced Micro Devices, Inc. 3DMark is a trademark of Futuremark Corporation. BAPCO and SYSmark are registered trademarks of Business Applications Performance Corporation. Windows and DirectX are registered trademarks of Microsoft Corporation. Other names used in this presentation are for identification purposes only and may be trademarks of their respective owners. 49573B

