



**For Immediate Release:**

May 16, 2007

**Austin Semiconductor, Inc. Announces New DDR2 iPEM Product Family**

**Austin, Texas** - Austin Semiconductor, Inc. (ASI), a leading supplier of high reliability (HI-REL), as well as, ruggedized plastic encapsulated semiconductor products and services, announces the release of a DDR2 family of iPEM devices. This new family is packaged in a 32mm x 25mm, 255 ball BGA with a ball pitch of 1.27mm. The first member of the new DDR2 product offering is a 2.4Gb device, organized as a 32M x 72/80 and offered in performance benchmarks up to 667Mbps transfer rate while operating within the Mil-Temperature range of  $-55^{\circ}$  to  $+125^{\circ}$ C. This device will be joined by a 4.8Gb version in September of this year.

The DDR2 product family is based on integrated multiple silicon devices, manufactured on an organic laminate micro-substrate and then encapsulated using industry standard plastic materials (iPEM). The device has been defined with separate power and ground planes as well as planer assembly techniques for improved flexibility for signal filtering and improved thermal performance. Austin Semiconductor supports the customer design in effort with full product AC/DC electrical specifications, IBIS models, package/laminate effects and a thermal analysis report. The product is available in RoHS and Pb metallurgical compositions.

This product has entered full production and is being delivered to all speed variants, including the DDR2-667Mbps variant operating at full military temperature range. A complete datasheet is available for download at [www.austinsemiconductor.com](http://www.austinsemiconductor.com). Austin Semiconductor continues to show their support to HI-REL markets by continuously developing products defined for use in these environments, such as the AS4DDR232M72PBG.

**AS4DDR232M72PBG features include:**

- DDR2 data rate = 400, 533 and 667 Mbps
- Core frequency = 200, 266 and 333 MHz
- Differential data strobe (DQS, DQS#) per byte
- Internal, pipelined, double data rate architecture
- 4-bit prefetch architecture
- DLL for alignment of DQ and DQS transitions with clock
- Four internal banks for concurrent operation (per 16-bit word)
- Programmable burst length: 4 or 8
- Auto refresh and self refresh modes
- On die termination (ODT)
- Adjustable data - output drive strength
- 1.8V +/- 0.1V power and I/O supplies
- Programmable CAS latency: 3,4,5 or 6
- Posted CAS additive latency: 0,1,2,,3 or 4
- Write latency = Read latency -1\*tCK
- Commercial, industrial and military temperature ranges
- Organized as 32M x 72 w/ support for x80
- Weight: AS4DDR232M72PBG = <3.5 grams

<continued>

ASI is progressively changing the component availability landscape for integrated components for use in hi-reliability and harsh environments. They have an aggressive development plan to introduce multiple SDRAM, SRAM and mixed memory iPEM definitions over the next year and in addition are currently in-process of defining system in package offerings (SiP). For more information on ASI's iPEM product offerings, please call 512.339.1188 or visit their newly enhanced website at [www.austinsemiconductor.com](http://www.austinsemiconductor.com).

Austin Semiconductor, Inc. (ASI) is a fully QML certified, ISO registered company that supports the high-reliability requirements of industries including Military, Aerospace, Transportation and Medical<sup>1</sup>. ASI offers I/C components and modules / MCM's to their customers through a broad line of HI-REL and COTS products composed of standard & specialty memory and digital & analog solutions that are available in a wide array of ceramic and plastic packages. ASI also offers DMS services, obsolescence support and radiation tolerant products. ASI designs, develops and manufactures these products exclusively for the global HI-REL marketplace and service industry.

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<sup>1</sup> Diagnostic/Monitoring, Non-Life support Medical Applications

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