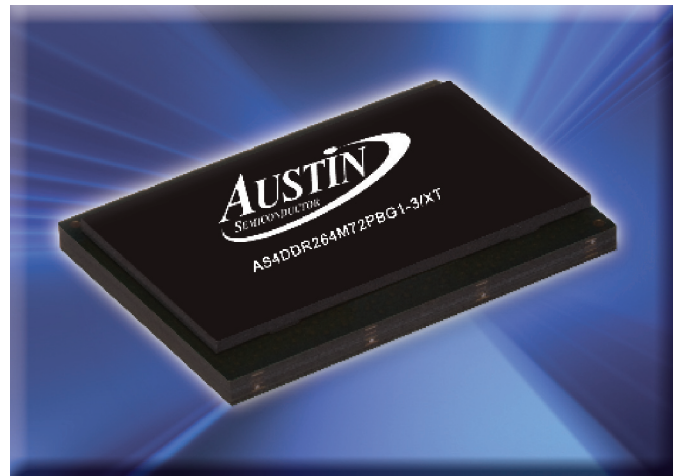




## 208 PBGA INTEGRATED PLASTIC ENCAPSULATED MICROCIRCUIT



### 4.8Gb & 4.2Gb SDRAM-DDR2 208 PGBA

#### BENEFITS:

- 60% Space Savings & Reduced Part Count
- 50% IO reduction vs individual BGA approach
- Reduced trace lengths for lower parasitic capacitance
- Suitable for hi-reliability applications, -55°C to 125°C

#### FEATURES

- DDR2 Data rate = 667, 533, 400
- Available in Industrial, Enhanced and Military Temp
- Package:
  - ~Proprietary Enhanced Die Stacked iPEM
  - ~208 Plastic Ball Grid Array (PBGA), 16 x 23mm
  - ~1.00mm ball pitch
- Differential data strobe (DQS, DQS#) per byte
- Internal, pipelined, double data rate architecture
- 4n-bit prefetch architecture
- DLL for alignment of DQ and DQS transitions with clock signal
- Eight internal banks for concurrent operation
- Programmable Burst lengths: 4 or 8
- Auto Refresh and Self Refresh Modes (I/T Version)
- On Die Termination (ODT)
- Adjustable data - output drive strength
- 1.8V  $\pm$ 0.1V common core power and I/O supply
- Programmable CAS latency: 3, 4, 5, 6 or 7
- Posted CAS additive latency: 0, 1, 2, 3, 4 or 5
- Write latency = Read latency - 1\* tCK
- Organized as 64M x 72 or 64M x 64
- Weight: 2.0 grams typical

#### OPTIONS

- AS4DDR264M72PBG1 (available now)  
4.8Gb, 64Mx72 SDRAM w/ SHARED Control Bus
- AS4DDR264M64PBG1 (available now)  
4.2Gb, 64Mx64 SDRAM w/ SHARED Control Bus
- AS4DDR265M64PBG1 (future product)  
4.2Gb, 64Mx64 SDRAM w/DUAL Control Bus

#### APPLICATIONS

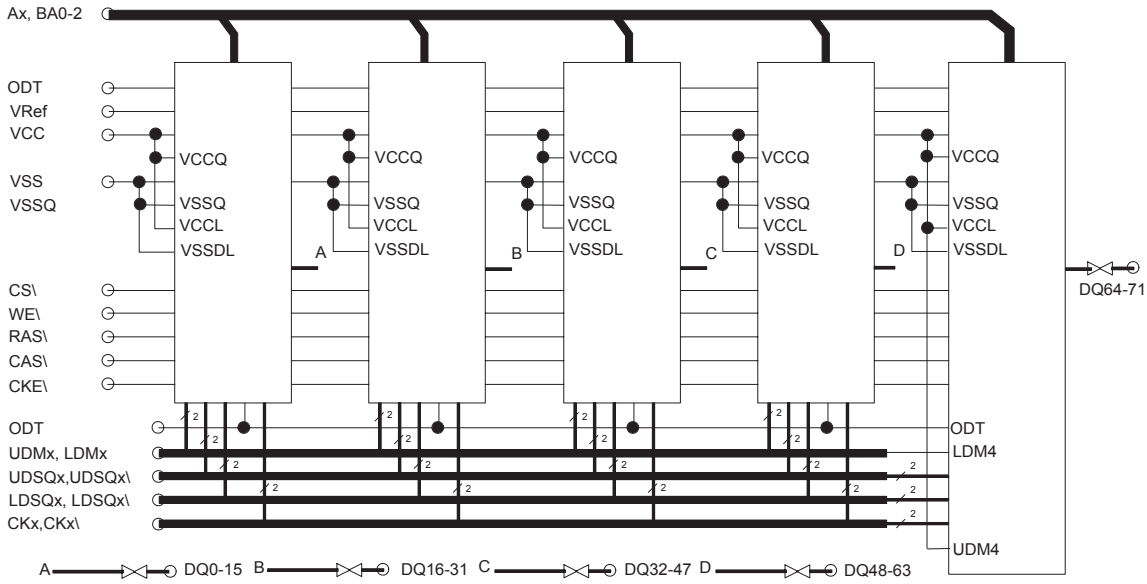
Examples Include:

- Compact Digital Computing
  - ~Digital Radio
  - ~Handheld GPS
  - ~Secure Communications Systems
- Missile guidance & navigation
- Smart munitions
- Portable manpack designs where weigh & size is critical

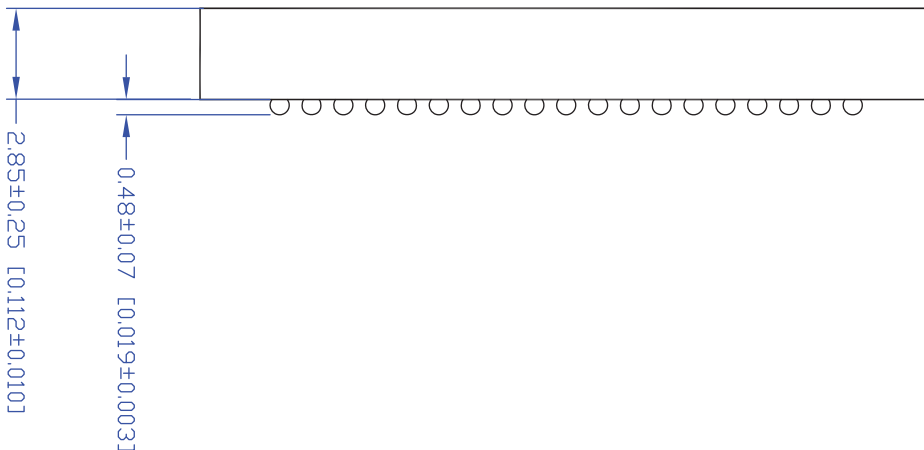
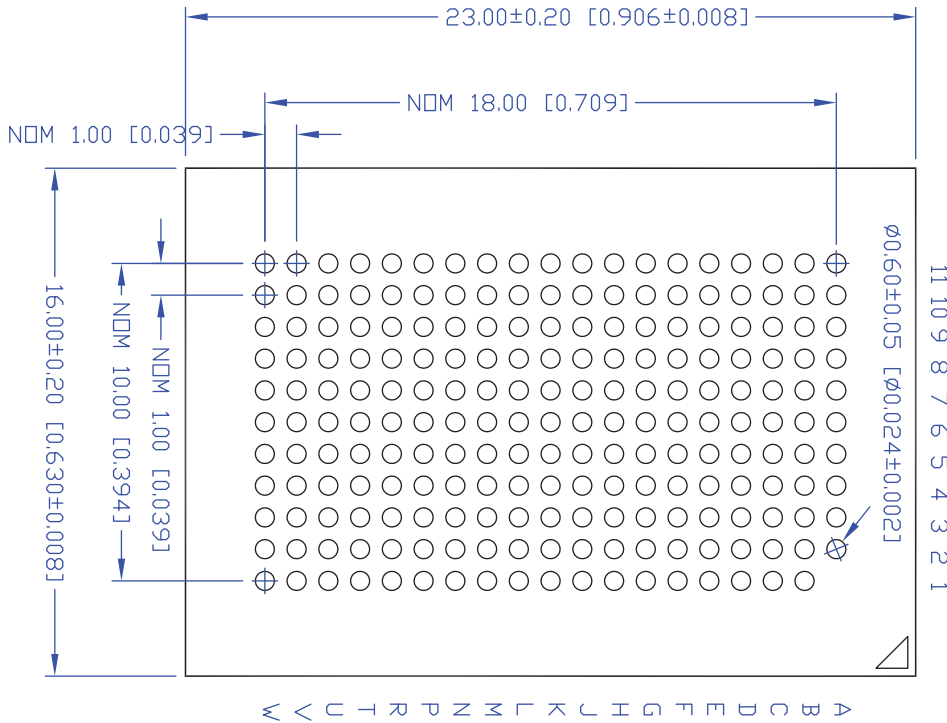
*For more information or to view a complete datasheet, please visit our website at [www.austinsemiconductor.com](http://www.austinsemiconductor.com) or call (512) 339-1188.*

[www.austinsemiconductor.com](http://www.austinsemiconductor.com)

# BLOCK DIAGRAM



# MECHANICAL DEFINITIONS



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