

1Gb - 64M x 16 DDR3 SDRAM

Advanced information. Subject to change without notice.

Features

- Tin-lead ball metallurgy
- $V_{DD} = V_{DDQ} = 1.35V$ (1.283-1.45V)
- Backward-compatible to $V_{CC} = V_{CCQ} = 1.5V \pm 0.075V$
- 1.35V center-terminated push/pull I/O
- Differential bidirectional data strobe
- 8n-bit prefetch architecture
- Differential clock inputs (CK, CK#)
- 8 internal banks
- Nominal and dynamic on-die termination (ODT) for data, strobe, and mask signals
- Programmable CAS READ latency (CL)
- Programmable CAS ADDITIVE latency (AL)
- Programmable CAS WRITE latency (CWL)
- Fixed burst length (BL) of 8 and burst chop (BC) of 4 (via the mode register set [MRS])
- Selectable BC4 or BL8 on-the-fly (OTF)
- Self refresh mode
- T_C of $-40^{\circ}C$ to $105^{\circ}C$
 - 64ms, 8192 cycle refresh at $-40^{\circ}C$ to $85^{\circ}C$
 - 32ms, 8192 cycle refresh at $85^{\circ}C$ to $105^{\circ}C$
- Automatic self refresh (ASR)
- Write leveling
- Multipurpose register
- Output driver calibration

Options	Code
• Configuration <ul style="list-style-type: none"> ▪ 64M x 16 	64M16
• Package: FBGA (Sn63 Pb37 solder) <ul style="list-style-type: none"> ▪ Footprint: 96-ball (8mm x 14mm) 	BG TW
• Timing - cycle time <ul style="list-style-type: none"> ▪ 1.5ns @ CL = 13 (DDR3-1866) 	-107
• Operating temperature <ul style="list-style-type: none"> ▪ Industrial ($-40^{\circ}C \leq T_C \leq +95^{\circ}C$) ▪ Enhanced ($-40^{\circ}C \leq T_C \leq +105^{\circ}C$) 	IT ET
• Part Marking: Label (L), Dot (D)	



AS9100 Rev. C
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Table 1: Key Timing Parameters

Speed Grade	Data Rate (MT/s)	Target tRCD-tRP-CL	tRCD (ns)	tRP (ns)	CL (ns)
-107	1866	13-13-13		13.91	

Micron Part. No. MT41K64M16TW-107AIT:J for the IT temp version
Micron Part No. MT41K64M16TW-107AAT:J for the ET temp version

MYX4DDR364M16JT • 1Gb - 64M x 16 DDR3 SDRAM

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Figure 1: 96-Ball FBGA (Top View), TW

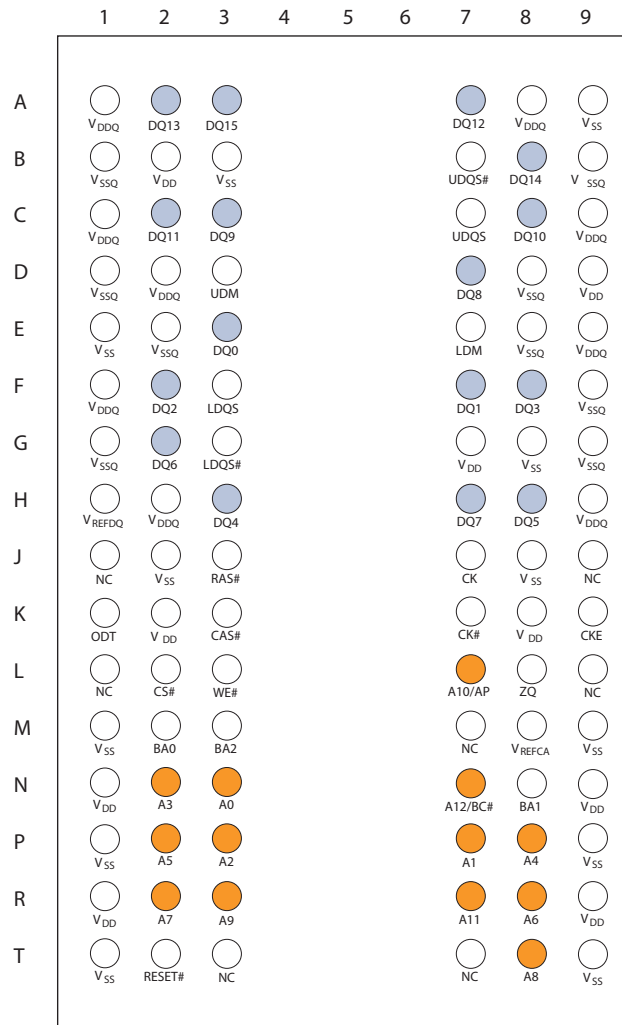
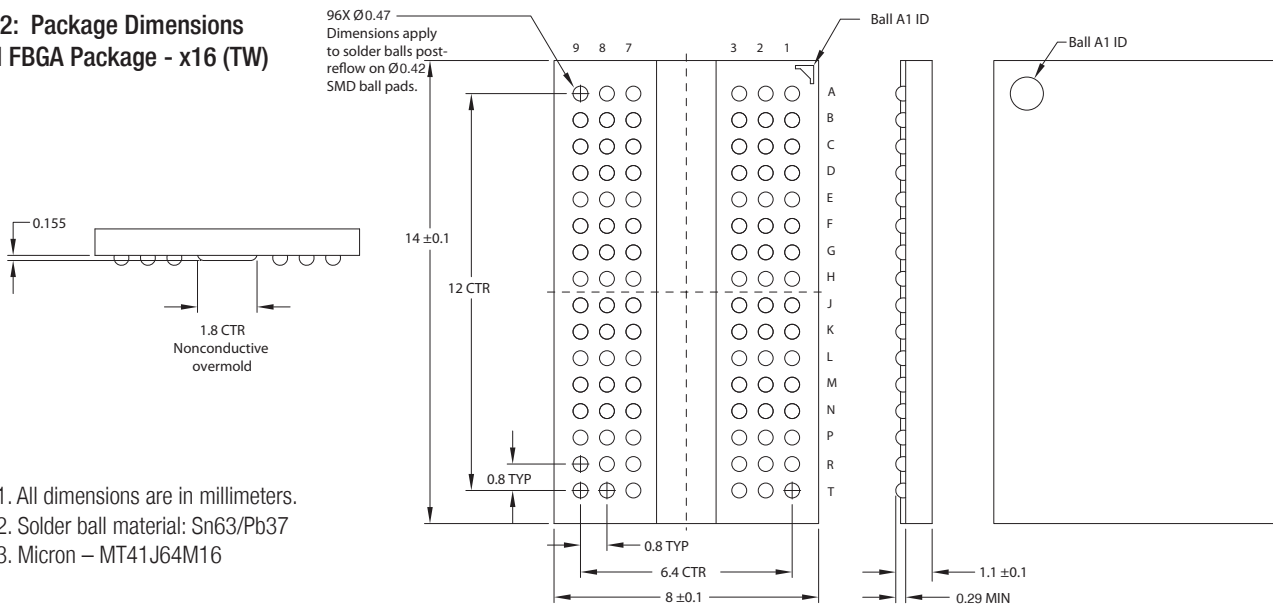


Figure 2: Package Dimensions
96-Ball FBGA Package - x16 (TW)



- Notes:
1. All dimensions are in millimeters.
 2. Solder ball material: Sn63/Pb37
 3. Micron – MT41J64M16

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