16Mb Burst CellularRAM™ 1.0 Memory Automotive Temperature Addendum

MT45W1MW16BDGB-708 AT

Features

- Single device supports asynchronous, page, and burst operations
- VCC, VCCQ voltages
  - 1.7–1.95V VCC
  - 1.7–3.6V VCCQ
- Random access time: 70ns
- Burst mode READ and WRITE access
  - 4, 8, or 16 words, or continuous burst
  - Burst wrap or sequential
  - MAX clock rate: 80 MHz (^{t}CLK = 12.5ns)
  - Burst initial latency: 50ns (4 clocks) @ 80 MHz
  - ^{t}ACLK: 9ns @ 80 MHz
- Page mode read access
  - Sixteen-word page size
  - Interpage read access: 70ns
  - Intrapage read access: 20ns
- Low power consumption
  - Asynchronous READ: <20mA
  - Intrapage read: <15mA
  - Initial access, burst READ: (50ns [4 clocks] @ 80 MHz) < 30mA
  - Continuous burst READ: <28mA
  - Standby: <70µA
  - Deep power-down: <3µA (TYP at 25°C)
- Low-power features
  - On-chip, temperature-compensated refresh (TCR)
  - Partial-array refresh (PAR)
  - Deep power-down (DPD) mode

Options	Designator
• Configuration:	MT45W1MW16BD
– 1 Meg x 16	
– VCC core voltage supply: 1.8V	
– VCCQ I/O voltage supply: 1.8V	
• Package: 54-ball VFBGA (green)	GB
• Timing: 70ns access	–70
• Frequency: 80 MHz	8
• Standby power: Standard	None
• Operating temperature range: Automotive (–40°C to +105°C)	AT

Part Number Example:

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Full Data Sheet Compliance for All Parameters

For MT45W1MW16BDGB-708 AT devices, all timing and DC parameter values for the automotive temperature range (–40°C to +105°C) remain the same as the standard data sheet values.

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