

# COMPACTFLASH™ CARD

**MTCF004A, MTCF008A,  
MTCF010A, MTCF016A,  
MTCF032A**

**CompactFlash ATA/ATA (IDE)**

## FEATURES

- Implements a highly integrated memory controller
  - Fully compatible with CompactFlash™ specification
  - ATA (IDE) compatible
  - 16-bit PC Card ATA standard with optional adapter
  - Also PCMCIA 2.1 compatible with optional adapter
- Smallest ATA-compatible form factor
  - 36.4mm x 42.8mm x 3.3mm
- Uses standard ATA software drivers; no additional software drivers required
- High reliability
  - No moving parts
  - Noiseless
  - 10,000 card insertions/removals
  - High shock and vibration tolerance
- Powerful Reed-Solomon error detection and correction
- Optimized power consumption
  - Selectable based on performance and power requirements
  - Automatic sleep mode with fast wake-up
- Supports standard power-management commands
  - POWER-DOWN command
  - SLEEP command
- High performance
  - 6 MB/s burst rate
- Available densities
  - 4MB, 8MB, 10MB, 16MB, 32MB
- 3.3V or 5V supply voltage
- Customer-specific labeling; contact factory for details

## GENERAL DESCRIPTION

The Micron® CompactFlash card is a small form factor, 50-pin connector, solid-state disk card with densities ranging from 4MB to 32MB. Maximum compatibility across various platforms is ensured because the CompactFlash card implements an industry-standard PCMCIA ATA- and IDE-compatible electrical interface. Additionally, the card is mechanically and electrically compliant with the CompactFlash Association (CFA) CompactFlash specification, version 1.3. (For details on this specification, refer to [www.compactflash.org](http://www.compactflash.org).)



Micron's MediaFlash memory components are used on the card, which is specifically designed for high-performance, low-cost, mass-storage applications.

Micron's CompactFlash card can be used in any application designed for the CompactFlash specification. Although it maintains compatibility with the electrical interface of a standard PCMCIA card, CompactFlash has a 66 percent smaller form factor that makes it an ideal choice for space-constrained, portable applications. With a 50-pin to 68-pin PCMCIA adapter, the CompactFlash card can be used in any Type II or Type III PCMCIA slot. Micron's CompactFlash card provides a superior memory solution for any application requiring rugged, compact, low-power (battery-powered) and reliable mass storage.

Please refer to the Micron Web site ([www.micronsemi.com/datasheets/flashds.html](http://www.micronsemi.com/datasheets/flashds.html)) for the latest data sheet.

## SPECIFICATION SUMMARY

### CAPACITY

MODEL NUMBER	FORMATTED CAPACITY	SECTORS PER CARD	HEADS	SECTORS/ TRACK	CYLINDERS
MTCF004A	4,030,464	7,872	2	32	123
MTCF008A	8,028,160	15,680	2	32	245
MTCF010A	10,485,760	20,480	2	32	320
MTCF016A	16,056,320	31,360	2	32	490
MTCF032A	32,112,640	62,720	4	32	490

### PERFORMANCE

( $0^{\circ}\text{C} \leq T_A \leq +60^{\circ}\text{C}$ ;  $V_{CC} = 3.3\text{V} \pm 5\%$  or  $5\text{V} \pm 10\%$ )

PARAMETER	TYP	MAX	UNITS	NOTES
Reset to ready	–	50	ms	
Sustained rate (READ)	1.5	–	MB/s	1
Sustained rate (WRITE)	400	–	KB/s	1
Burst rate	–	6	MB/s	2
Data path	x8 or x16	–	bits	
Buffer/burst size	512	–	bytes	
Command to DRQ (READ)	–	2	ms	
Command to DRQ (WRITE)	–	1	ms	

### CURRENT DRAIN

( $0^{\circ}\text{C} \leq T_A \leq +60^{\circ}\text{C}$ ;  $V_{CC} = 3.3\text{V} \pm 5\%$  or  $5\text{V} \pm 10\%$ )

PARAMETER	MAX	UNITS	NOTES
Operating current (3.3V $\pm$ 5%)	75	mA	3
Operating current (5V $\pm$ 10%)	100	mA	3
Sleep mode current (3.3V $\pm$ 5%)	0.6	mA	
Sleep mode current (5V $\pm$ 10%)	1.0	mA	

**NOTE:** 1. Parameter depends on application and host overhead.  
 2. Parameter is specified for a READ or WRITE.  
 3. Maximum average RMS current.

**SPECIFICATION SUMMARY (CONTINUED)**
**ENVIRONMENTAL CONDITIONS**

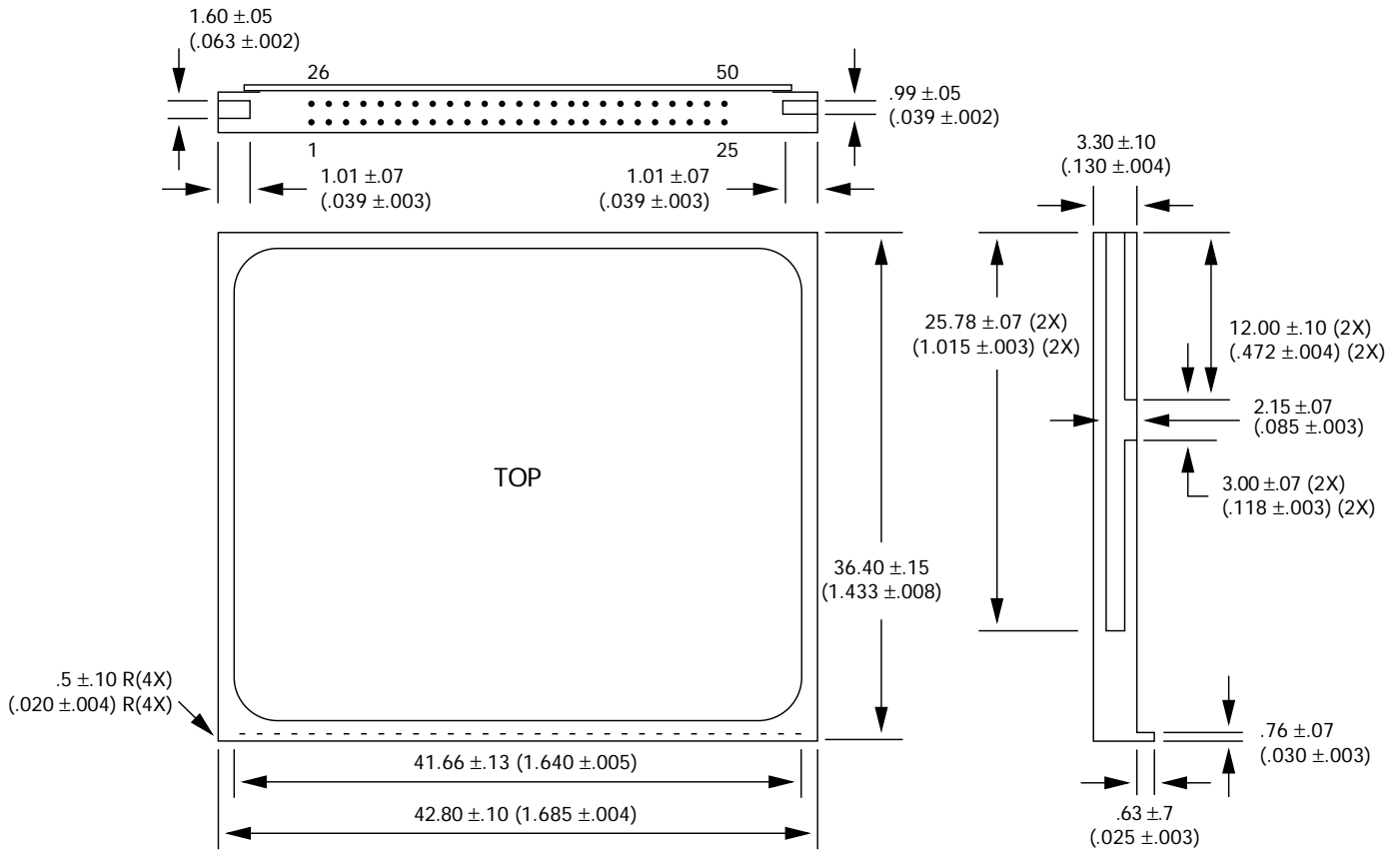
PARAMETER	MIN	MAX	UNITS	NOTES
Temperature (operating)	0	+60	°C	
Temperature (nonoperating)	-25	+85	°C	
Shock (operating/nonoperating)	-	2,000	G	1
Vibration (operating/nonoperating)	-	15	G	2
Humidity (operating/nonoperating)	8%	95%	-	3
Noise	-	0	db	

**NOTE:** 1. Parameter is specified for any axis or direction.  
 2. Measured peak to peak.  
 3. Noncondensing.

**ORDERING INFORMATION**

PART NUMBER	DENSITY
MTCF004A- ____	4MB
MTCF008A- ____	8MB
MTCF010A- ____	10MB
MTCF016A- ____	16MB
MTCF032A- ____	32MB

**NOTE:** All part numbers end with a three-place code (not shown), designating ASIC, flash component and PCB revision. Consult factory for current revision codes.  
 Example: MTCF004A-CAB

**COMPACTFLASH CARD**


**NOTE:** 1. All dimensions in millimeters (inches)  $\frac{\text{MAX}}{\text{MIN}}$  or typical where noted.



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