# CF170 CompactFlash Card

Transcend CF170 is High Speed Compact Flash Card with high quality Flash Memory assembled on a printed circuit board. The product supports CFA 6.0. standard. With advanced power design, the product can protect itself when abnormal power occurs or irregular temperature usage. This is absolute deign for industrial environment, special in vehicle application, wide range temperature application, road surveillance, vibration application and outdoors environment.

Features

- Compliant with CF 6.0 specification with LBA48 support
- RoHS compliant products
- Single Power Supply: 3.3V±5% or 5V±10%
- Operating Temperature: -25°C to 85°C
- Storage Temperature: -40°C to 85°C
- Operating Humidity (Non condensation): 0% to 95%
- Storage Humidity (Non condensation): 0% to 95%
- Built-in BCH ECC (Error Correction Code) functionality and global wear-leveling algorithm ensures highly reliable of data transfer
- Operation Modes:
- PC Card Memory Mode
- PC Card IO Mode
- True DE Mode
- PC Card Mode supports up to Ultra DMA Mode 5
- True IDE Mode supports:
- Ultra DMA Mode 0 to Ultra DMA Mode 5(UDMA5 must work under 3.3V)
- MultiWord DMA Mode 0 to MultiWord DMA Mode 2
- PIO Mode 0 to PIO Mode 6
- PC Card Mode: Removable Disk (Standard)
- True IDE mode: Fixed Disk (Standard)
- Durability of Connector: 10,000 times
- MTBF: 1,000,000 hours
- Support S.M.A.R.T (Self-defined) to monitor Erase Count for lifetime evaluation
- Support Security Command
- Support Static Data Refresh, Early Retirement to extend product life
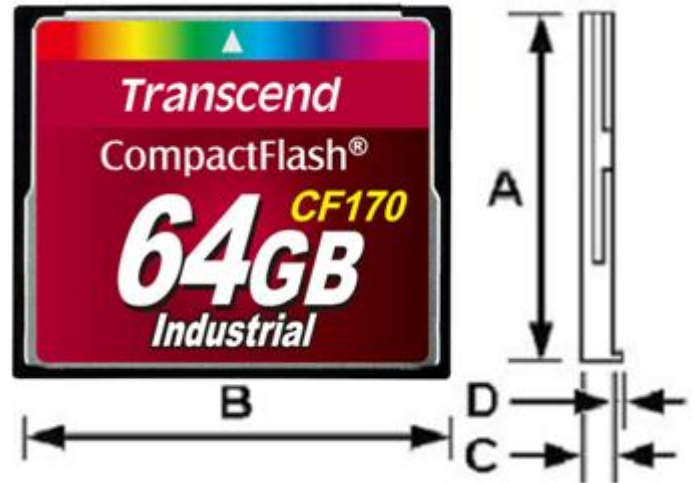
Dimensions

Side	Millimeters	Inches
A	36.40±0.150	1.43±0.005
B	42.80±0.100	1.69±0.004
C	3.30±0.100	0.13±0.004
D	0.63±0.070	0.02±0.003

Specifications

Capacity

Model P/N	Cylinder	Head	Sector	User LBA	Physical Capacity
TS4GCF170	7785	16	63	7847280	4,017,807,360 Byte
TS8GCF170	15538	16	63	15460704	8,019,099,648 Byte
TS16GCF170	16383	15	63	31293360	16,022,200,320 Byte
TS32GCF170	16383	15	63	62537328	32,019,111,936Byte
TS64GCF170	16383	15	63	125,044,736	64,002,424,832 Byte

Performance (MB/s)

	Sequential Read	Sequential Write	Random 4K Read	Random 4K Write
TS4GCF170	29.85	12.72	8.029	0.017
TS8GCF170	75.84	11.17	10.14	1.293
TS16GCF170	91.59	20.76	11.07	1.274
TS32GCF170	89.80	38.15	11.41	1.174
TS64GCF170	89.20	61.27	10.30	1.310

Note : Test by Crystal Disk Mark V3.0.1, 500MB size @25 ^{o}C, P5K-VM(ICH 9), 1GB RAM * 2, IDE interface support up to UDMA5, Windows® XP SP3.

Power Consumption (mA)

	Sequential Read	Sequential Write	Idle
TS4GCF170	112.8	94.7	1
TS8GCF170	180.4	94.7	1
TS16GCF170	208.4	126.9	1
TS32GCF170	205.4	180.2	1
TS64GCF170	215.2	256.0	2

Note: All data above are maximum value from various test pattern.

	Endurance				
Capacity	4GB	8GB	16GB	32GB	64GB
TeraByte Write	2.5 TBW	5 TBW	10 TBW	20 TBW	40 TBW

Note: Based on JEDEC JESD218A specification, Client Application Class. And based on the following scenario: Active use : 40°C, 8hrs/day; Re

Interface

Part Number	Interface	Transfer Mode	Connector
TS4G~64GCF170	True IDE mode	Ultra DMA mode 0~5 Multi-Word DMA Mode 0~2 PIO Mode 0 ~ 6	50pin 0.635mm pitch Pin Header

Environmental Specifications	
Operating Temperature	-25 $^{\circ}$C to 85 $^{\circ}$C
Storage Temperature	-40 $^{\circ}$C to 85 $^{\circ}$C
Operating Humidity (Non condensation)	0% to 95%
Storage Humidity (Non condensation)	0% to 95%

SHOCK & Vibration Test		
	Condition	Standard
Mechanical Shock Test	1500G, 0.5ms, 3 axes	IEC 60068-2-27

Note: If Third party report is needed, please contact with sales/PM.

EMC/EMI	
Compliance	CE, FCC and BSMI

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