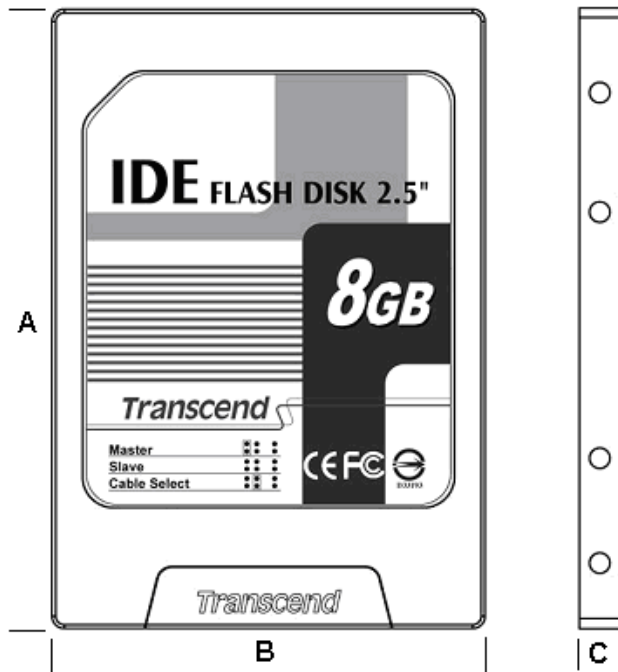


## Description

With an IDE interface and strong data retention ability, 2.5" IDE Flash Disk are ideal for use in the harsh environments where Industrial PCs, Set-Top Boxes, etc. are used.

## Placement



## Features

- RoHS compliant products
- Fully compatible with devices and OS that support the IDE standard (44pin, pitch = 2.00 mm)
- Non-volatile Flash Memory for outstanding data retention
- Built-in ECC function assures high reliability of data transfer
- Auto Sleep and Power-Down modes supported
- Lower Power Consumption
- Shock resistance

## Dimensions

Side	Millimeters	Inches
A	100.00 ± 0.40	3.937 ± 0.016
B	70.00 ± 0.20	2.756 ± 0.008
C	7.00 ± 0.15	0.276 ± 0.004

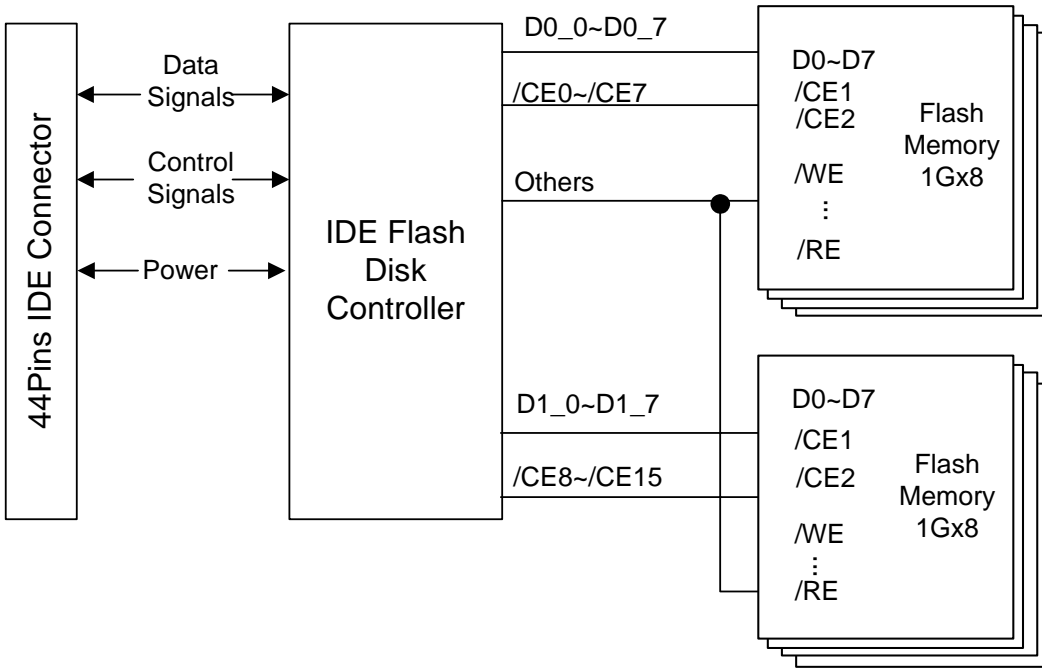
## Pinouts

Pin No.	Pin Name	Pin No.	Pin Name
01	/RESET	02	GND
03	D7	04	D8
05	D6	06	D9
07	D5	08	D10
09	D4	10	D11
11	D3	12	D12
13	D2	14	D13
15	D1	16	D14
17	D0	18	D15
19	GND	20	KEY-PIN
21	DMARQ	22	GND
23	/IOWR	24	GND
25	/IORD	26	GND
27	IORDY	28	CSEL
29	/DMACK	30	GND
31	INTRQ	32	IOCS16B
33	A1	34	/PDIAG
35	A0	36	A2
37	/CS1	38	/CS2
39	/DASP	40	GND
41	VCC	42	VCC
43	GND	44	NC

## Pin Definition

Symbol	Function
D0 ~ D15	Data Bus (Bi-directional)
A0 ~ A2	Address Bus (Input)
/RESET	Device Reset (Input)
/IORD	Device I/O Read (Input)
/IOWR	Device I/O Write (Input)
IOIS16B	Transfer Type 8/16 bit (Output)
/CS1, CS2	Chip Select (Input)
/PDIAG	Pass Diagnostic (Bi-directional)
/DASP	Disk Active/Slave Present (Bi-directional)
INTRQ	Interrupt Request (Output)
DMARQ	DMA Acknowledge (Output)
/DMACK	DMA Request (Input)
IORDY	I/O Channel Ready (Input)
CSEL	Cable Select (Input)
NC	No Connection
GND	Ground
VDD	Power

Block Diagram



## Specifications

Environment		
Capacity		8GB
Temperature	Operating	0 to 70
	Non-Operating	-40 to 85
Host Interface Mode	PIO 4	16.6MB/s (Typical max.)
Power Requirement	Voltage	DC 5V ± 10%
Data Retention		10 years
Connector Durability		10,000 times
Erase Cycles		>100,000 times
Certificates		CE, FCC, BSMI

## Absolute Maximum Ratings

Symbol	Parameter	Min	Max	Unit
VDD	Power Supply	5.0-0.5	5.0+0.5	V
Tst	Storage Temperature	-40	+85	°C

## Recommended Operating Conditions

Symbol	Parameter	Min	Max	Units
VDD	Power supply	5.0-0.25	5.0+0.25	V
Vcc_f	Input voltage (flash and core)	3.3-0.3	3.3+0.3	V
Vcc_c	Input voltage (core)	2.5-0.25	2.5+0.25	V
Ta	Operating Temperature	0	+70	°C

**DC Characteristics (Ta=0 oC to +70 oC, Vcc\_f = 3.3V ±10%)**

Symbol	Parameter	Min	Max	Unit	Notes
VIL	Input Low Voltage	-0.3	+0.8	V	
VIH	Input High Voltage	2.0	Vcc+0.3	V	
VOL	Output Low Voltage	--	0.45	V	
VOH	Output High Voltage	2.4	--	V	
ICC	Operating Current (Sleep mode)	--	0.2	mA	
ILI	Input Leakage Current	--	+/-10	uA	
ILO	Output Leakage Current	--	+/-10	uA	
CI/O	Input/Output Capacitance	--	10	pF	

**True IDE Mode I/O Access Read and Write AC Characteristics**

Parameter	Symbol	Min	Max	Unit
Cycle time	TcR	120	--	ns
Address setup time for IORD/IOWR	TsuA	25	--	ns
Address hold time for IORD/IOWR	ThA	10	--	ns
IORD/IOWR pulse width	Tw	70	--	ns
IORD/IOWR recovery time	Trec	25	--	ns
Data setup time for IORD	TsuD(IORD)	20	--	ns
Data hold following IORD	ThD(IORD)	5	--	ns
Output disable time from IORD	Tdis(IORD)	--	30	ns
Data setup time for IOWR	TsuD(IOWR)	20	--	ns
Data hold following IOWR	ThD(IOWR)	10	--	ns

Above technical information is based on industry standard data and tested to be reliable. However, Transcend makes no warranty, either expressed or implied, as to its accuracy and assumes no liability in connection with the use of this product. Transcend reserves the right to make changes in specifications at any time without prior notice.