

IDE to CompactFlash adapter

The IDE to CompactFlash adapter enables OEMs to replace hard disk drives with economical, rugged CompactFlash cards.

Benefits

- Low power (less than 0.5W)
- Fast startup time – no spinup.
- Fast read access time.
- Higher transfer rate than DOC.
- Not sensitive to shock and vibration.
- Suitable for extended temperature range (depending on card)
- Small capacity cards are less expensive than hard disk drives. Cards are available at competitive prices from many suppliers.
- Compatible with IDE hard drives, no special drivers required.
- No acoustic noise.

Applications

- Network appliances such as firewalls or routers.
- Industrial control, robotics
- Point of Sales
- Functional test fixtures for system boards or adapter cards (faster boot time, no spinup delay)

Easy to use

- Just connect power and IDE cable, and plug in card.
- Due to limitations in the CompactFlash spec and operating system software, hot insertion is not supported.

- Install the jumper to run as master device, or remove for slave (CFDISK.1C / .1D only).
- CompactFlash cards sold for digital camera use sometimes have strange partition sectors, and may require rewriting (FDISK /MBR) to make them bootable.
- To most BIOSes and operating systems, the CompactFlash card will look just like an IDE hard disk drive.

Power

The adapter is passive, and does not draw any power by itself. Typical CompactFlash cards draw less than 100mA from the +5V rail. +12V is not needed.

Compliance

PCB is rated UL 94V-0. The adapter is designed for use inside a chassis. Power to the CompactFlash card is not fused. As EMI depends greatly on enclosure design, the adapter has not been tested for EMI.

Custom designs

Special configurations and custom designs are available – please ask for a quotation.

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CFDISK.1C / CFDISK.1E dimensions

This is the 40 pin IDE version, designed for use with standard PC system boards. This version is available with hard disk (large) or floppy disk (small) power connectors. The CF connector supports type I (regular CompactFlash) and type II (e.g. IBM Microdrive) cards.

This board can be configured for master / slave – install jumper for master, remove jumper for slave.

CFDISK.1C can be configured with ejector on request (type I cards only).

A dual stacked version (master + slave) is also available (special order only).

Change history:

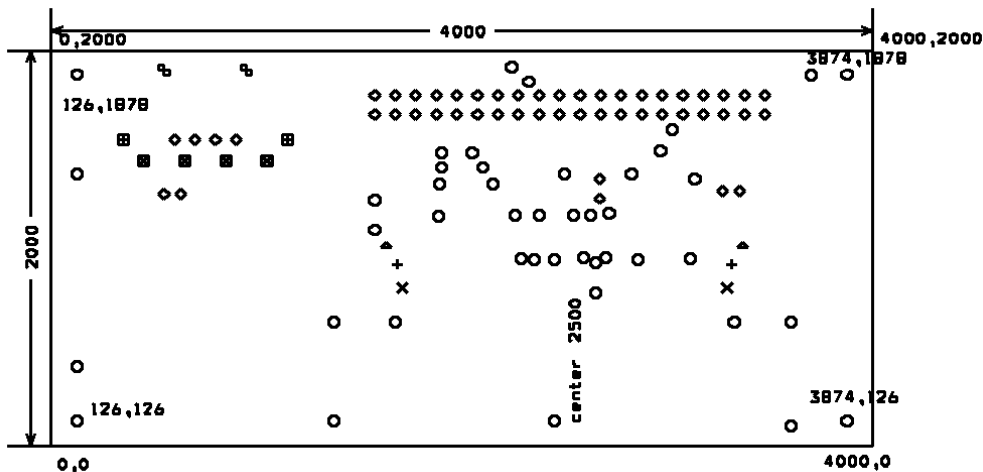
CFDISK.1E Add support for IDE DMA.

CFDISK.1D Use low profile CF header for lower cost

CFDISK.1C Made in Taiwan, all ceramic bypass capacitors

CFDISK.1B Assembled in USA, electrolytic bypass capacitors

CFDISK.1A Assembled in USA, SMT electrolytic bypass capacitors



CFDISK.2D dimensions (phased out – special order only)

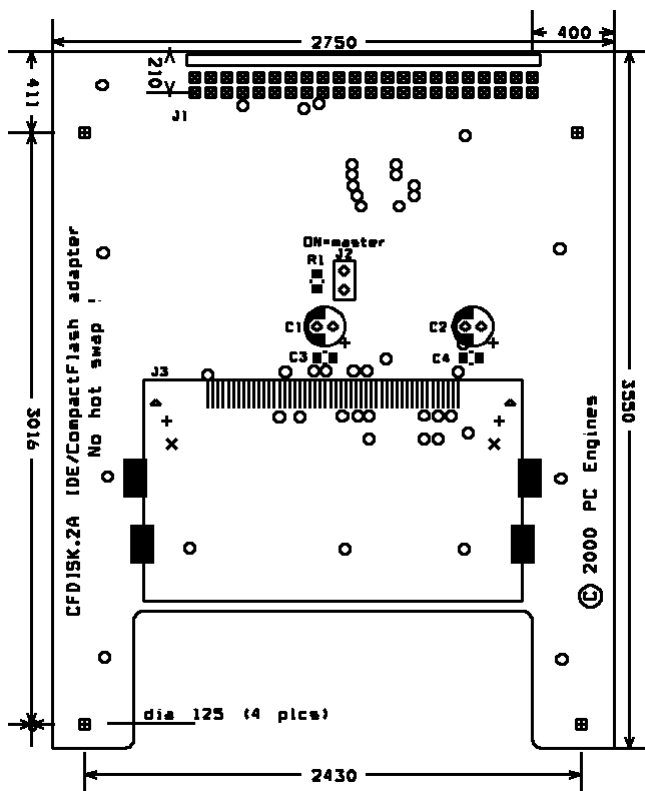
This is the 44 pin IDE version, designed for use with embedded PC system boards. The board is designed to have the same outline and pinout as a 2.5" hard disk drive, but will not match the vertical profile of modern 2.5" drives. The 44 pin connector includes power, there is no separate power connector. The CF connector supports type I and type II cards.

CFDISK.2E / 2F dimensions

This version has the same outline, but is designed to match the vertical profile of 2.5" drives. This board is mounted through threaded stand-offs from the bottom side. The 44 pin connector includes power, there is no separate power connector. The CF connector supports type I and type II cards.

Change history:

- CFDISK.2F Added IDE DMA support.
- CFDISK.2E Straddle mount connector, threaded standoffs
- CFDISK.2D Made in Taiwan
- CFDISK.2C Assembled in USA, all ceramic bypass capacitors, delete master / slave jumper, change CF header
- CFDISK.2B Assembled in USA, no stuff redundant bypass capacitors, change CF header
- CFDISK.2A Assembled in USA, SMT electrolytic bypass capacitors



CFDISK.5G dimensions

This version is designed to plug directly onto an IDE header, using a right angle female header. Power is supplied by a floppy power connector. The CF card extends beyond the PCB, so this solution is not suitable for 1U chassis. Not recommend for high vibration environments. No master / slave selection.

This board can also be ordered with a straight 40 pin header. Please review your system board for mechanical conflicts...

Change history:

- CFDISK.5G Change of CF header for lower cost
- CFDISK.5F Special version with 180 degree rotated data connector (special order)
- CFDISK.5D Made in Taiwan
- CFDISK.5C Assembled in USA, all ceramic bypass capacitors, change CF header
- CFDISK.5B Assembled in USA, change electrolytic cap to SMT, turn IDE connector around, use keyed connector
- CFDISK.5A Assembled in USA, non-keyed connector (different orientation)

