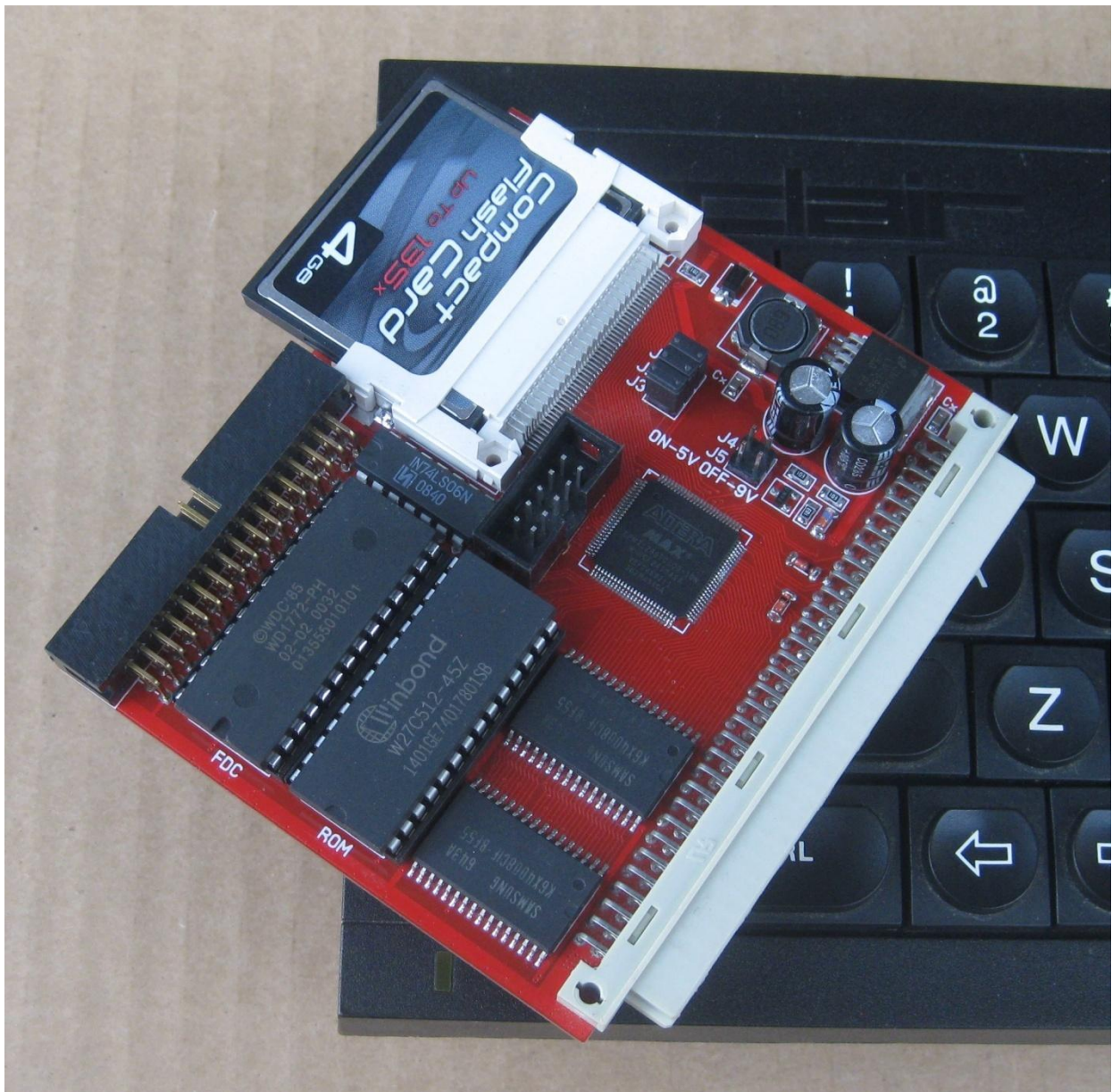


# **Tetroid disk interface ( TDI )**

## **QL Memory expansion, Floppy disk drive and Compact Flash card Interface**

### **Installation and User Guide**



## Introduction.

TDI interface consist of three hardware parts :

1. 768 Kb memory expansion
2. Floppy disk interface, based on Miracle Trump card interface logic
3. Compact flash card interface, based on QUBIDE/QUBATA interface logic.

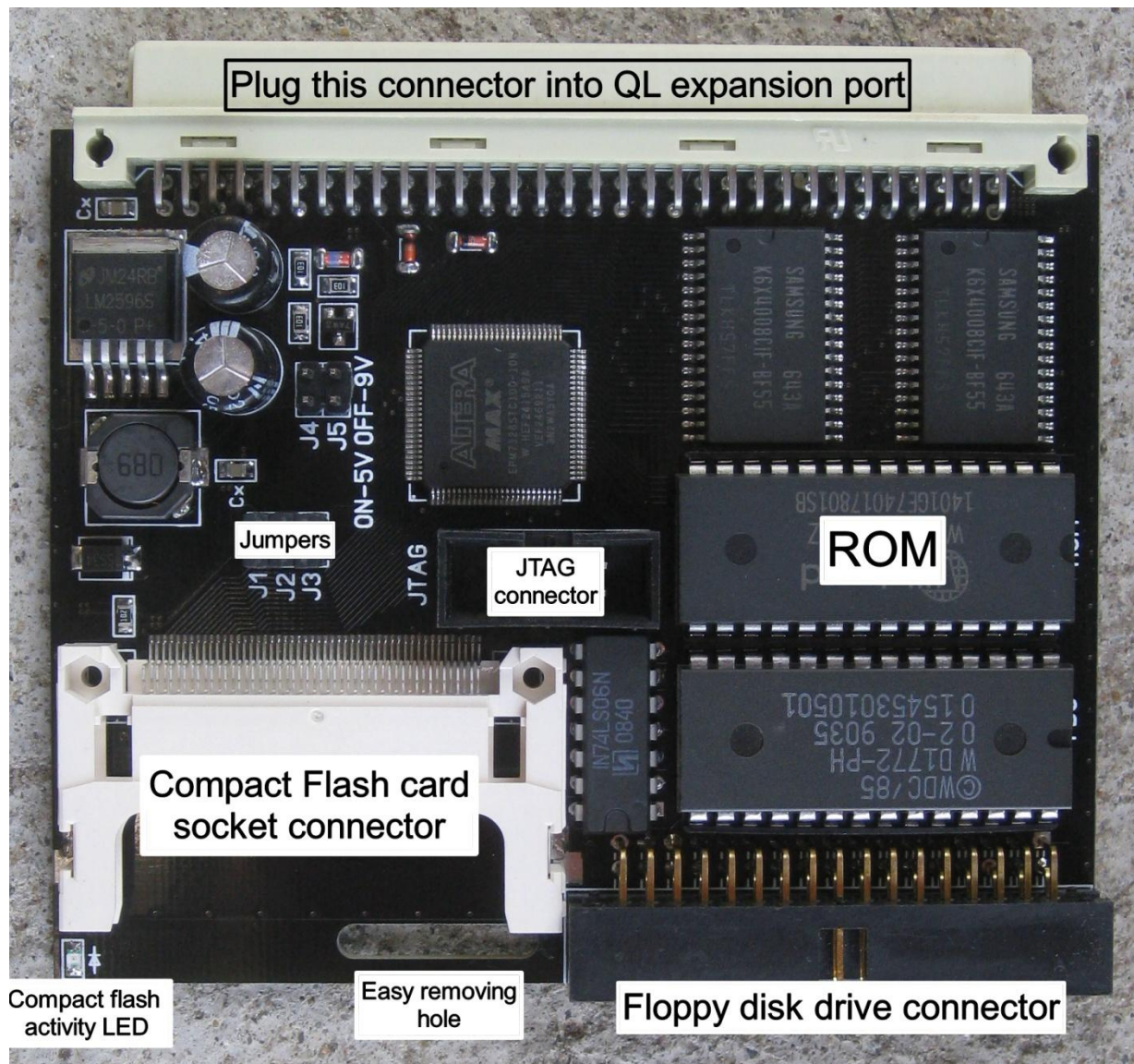
You can enable and disable any of those parts for your needs.

## Power Requirement

TDI uses power from the QL. We have taken all the steps we could think of to keep the power drain to a minimum. The interface has switch-mode power supply and should represent a negligible power drain on your system.

## Connectors and jumpers

TDI has four Connectors and two jumper blocks, one of which consists of 3 jumpers (J1, J2, J3 used to configure the card) the other consisting of 2 jumpers (J4 & J5). The location of these are shown below.





## Configuring the card

Be sure to configure the card BEFORE you fit it into your system, because the jumpers might be inaccessible once the card is plugged in !

### Jumper J1 – J3 settings :

Jumper	Open	Close
J1	768Kb memory expansion disable	768Kb memory expansion enable
J2	Floppy disk interface disable	Floppy disk interface enable
J3	QUBIDE / QUBATA interface disable	QUBIDE / QUBATA interface enable

### Selecting the base address of QUBIDE / QUBATA

Because of the need to ensure compatibility of QUBIDE/QUBATA and Trump card, the QUBIDE address-space is fixed at 0C000h. This means that the external ROM port will no longer be usable and any ROM cartridge plugged-in will not be detected by the QL.

### Running the board from +5v

There are two connectors (J4 & J5) which, when left open, (default setting) allow TDI to convert the 9v unregulated supply given out by the QL into +5v via Voltage Regulator on board TDI.

If you have a powered backplane, where the 9V rail is being supplied with +5v, TDI will cease to function. To get TDI functioning again you must place a jumper on both J4 & J5. This will by-pass the on board Voltage Regulator and supply the interface directly with +5v.

**WARNING !!!!! If these jumpers are not removed when plugged into a standard QL arrangement there will be FATAL consequences to TDI and possibly any Compact flash card connected to TDI.**

### Fitting and removing the interface.

Before you do any connecting or disconnecting of your system's parts **BE SURE TO SWITCH OFF ALL THE POWER TO YOUR SYSTEM!!!**

If you have a bare QL (which is unlikely, but possible) remove the expansion port plastic cover by pulling the small protrusion under the left-hand edge of the keyboard. This should expose the QL's expansion port. Carefully plug TDI into the exposed expansion port, taking care not to apply excessive force.

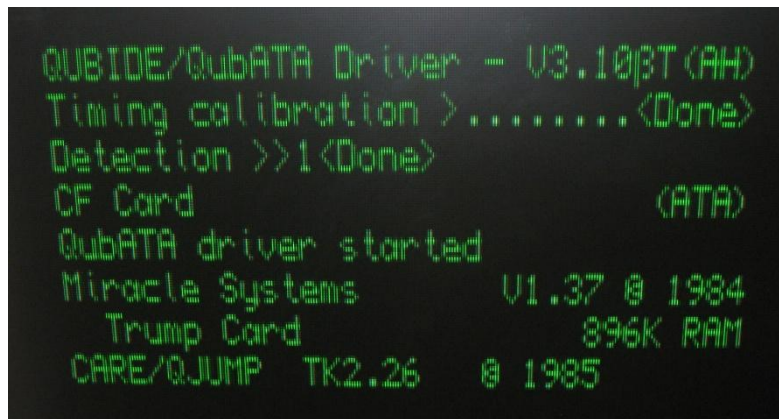
### Fitting and removing the Compact flash card into the TDI

Before you fitting and removing the Compact Flash card **BE SURE TO SWITCH OFF ALL THE POWER TO YOUR SYSTEM!!!**

## Getting up and running

Once you have set up TDI by jumpers you have chosen, connected TDI to your QL and connected a CF card and / or Floppy Disk Drive to TDI, you can now power up your QL and Floppy Disk Drive.

The following messages will appear on your screen:



QUBIDE / QUBATA and/or Floppy disk interface messages, depending on chosen Jumpers settings ( J1 - J3 ).

If the expected messages do not appear, switch everything off and check the jumpers settings and the physical connection with the QL.

### Using your CF card.

For using your CF card please refer to QUBIDE / QUBATA software manuals.

### Using your Floppy disk drives.

For using your Floppy disk drives please refer to Miracle Trump card user software manuals.

## TDI ROM mapping

TDI has 64 Kbytes of ROM, for which you can use any versions of Trump card and QUBIDE / QUBATA ROM images, according the following mapping :

Internal ROM address ranges	Image
0000h – 7FFFh	Trump card ROM
8000h – BFFFh	QUBIDE / QUBATA ROM
C000h - FFFFh	Not used

Internal ROM Address ranges - remapped to the appropriate address-space within the QL Memory map.