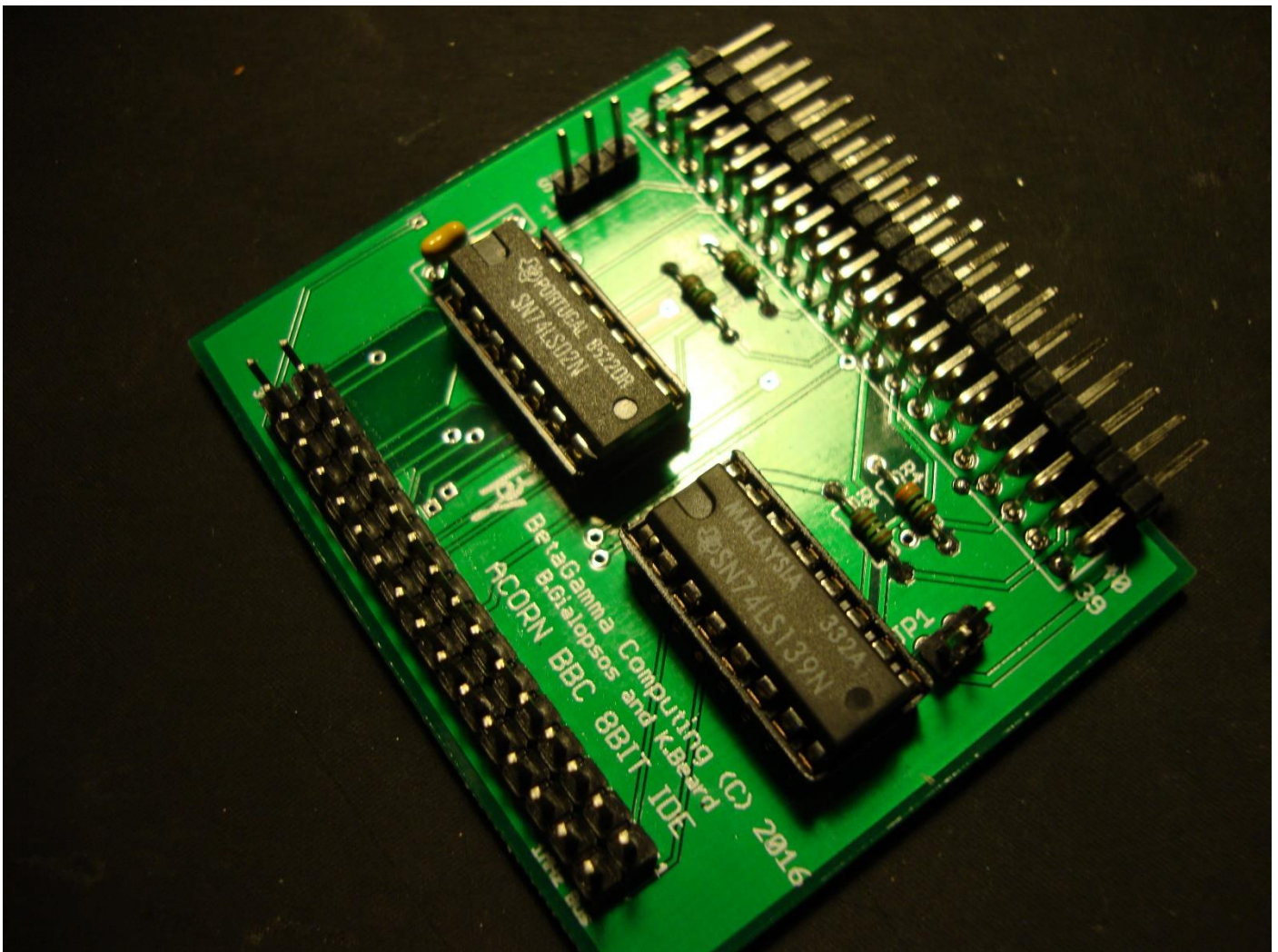




## Acorn BBC

## 8 BIT IDE Interface

Design © Bas Gialopsos 2016



### Main Features

- Professionally Manufactured, Double Sided, Shielded PCB
- 100% Acorn System Compliant
- 100% Tube and all Coprocessor Compliant
- Hi Speed Operation.
- Low Power Consumption (29mA)
- Supports 2 Partitions, 512MB each Max
- 100% Compatible with latest IDE to SD / SDHC Adapters
- Full Lifetime Technical Support and Continued development.
- Designed and Manufactured in South Wales, UK

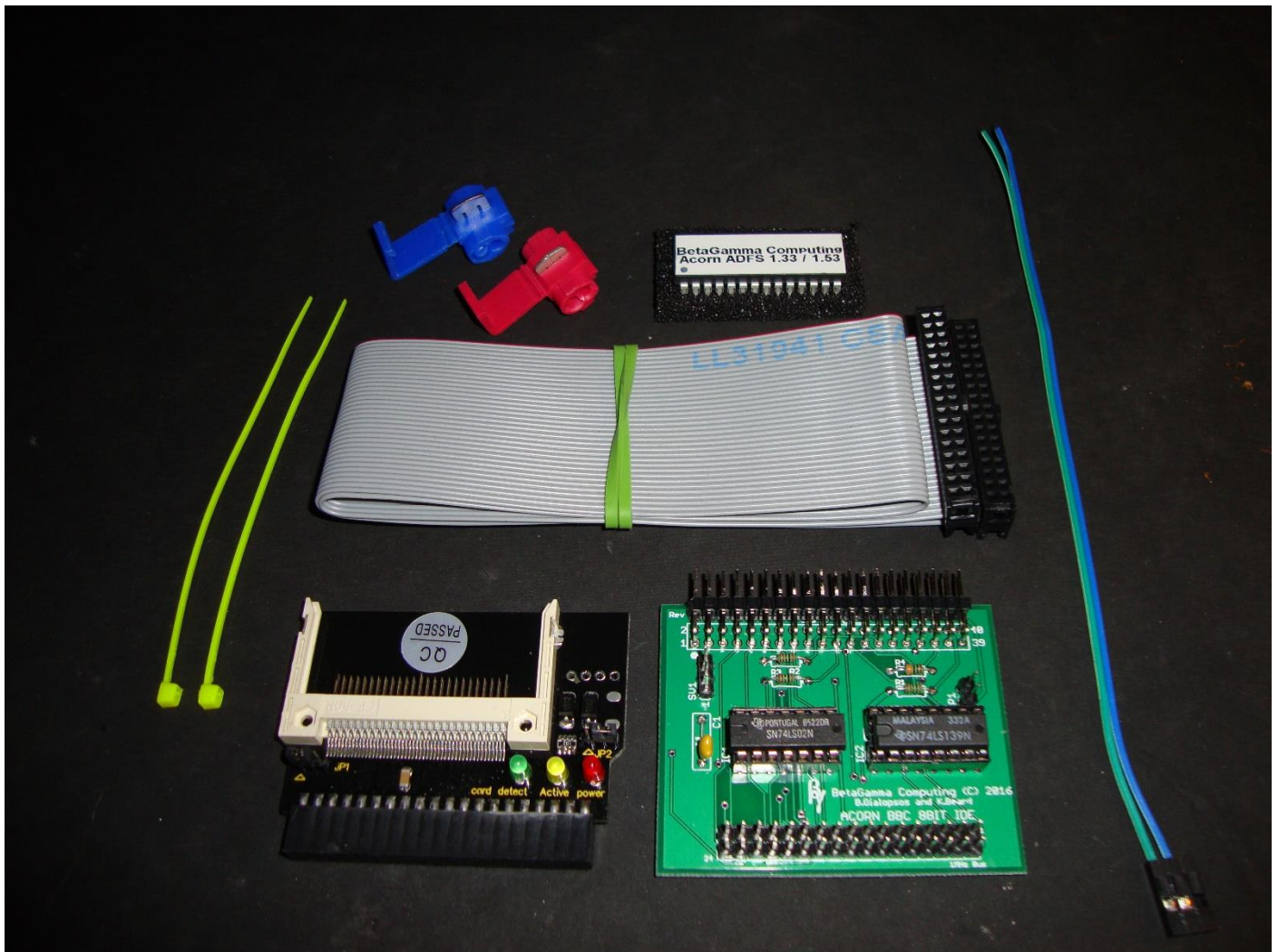
# Welcome Guide

Dear fellow Acorn User,

Congratulations on your purchase of the BetaGamma Computing Acorn BBC 8 Bit IDE Interface. The Kit Includes everything you need to Install the Interface in your BBC Model B, B+ or Master Series Microcomputer.

Also provided is Full Cloud based access to Documentation, Firmware, Utilities, as well as Sample Hard Disc Images that you can download and use straight away. Being Cloud Based it will be kept updated with new software revisions as well as feedback from users and any tips or tricks to get the best out of your System Setup.

You will also find various Video tutorials added regarding Installation and use of the system.



The package you received should contain the above pictured items which will be described below, in some cases similar suitable parts maybe supplied instead.

## 1. BetaGamma Acorn BBC 8 Bit IDE Interface PCB

This is fully assembled, tested and is the 'host controller'

## 2. 40 Pin inline CF adapter

This is a standard off the shelf IDE to CF adapter with indicator LED's for Power, Card detect, and Activity, it is powered directly by the Interface PCB, an external power connection is not required.

### 3. 34 Way IDC Flat Ribbon cable – 50CM

This cable connects the Interface to the Acorn BBC's 1MHz Bus Connector usually found under the Machine, it can connect either way but care must be taken to orientate Pin 1 of the cable Headers, identified by the red stripe on the cable, with Both Pin 1's of the Interface PCB and the Microcomputers 1MHz Bus.

**Please be careful to not insert the cable to the Floppy Controller port which is also 34 way.**

### 4. 3 Pin Interface Power cable

This cable is used to supply a Regulated +5V DC Supply to the Interface and CF card. It is wired Centre Positive with dual outer Ground connections so the cable can be inserted to the Interface PCB's header either way round.

### 5. 2 off Scotch Lock Connectors

These are supplied to allow quick connection of the 3 Pin Power Cable onto the Machines existing Power Loom, they are quite self-explanatory and allow for a 'No Soldering' Installation. Don't be afraid to exert force as necessary to bond the connection.

### 6. 2 off Cable Ties

These are supplied to help secure the 3 Pin Power Cable to the existing power loom to reduce strain on the connection points.

### 7. Firmware ROM

This is a 32K OTP PROM device and contains 2 ADFS Filing System ROMs.

**ADFS 1.33** is used for BBC Model B and B+ Microcomputer Systems.

**ADFS 1.53** is used for BBC Master 128/512/Turbo Microcomputer Systems.

The PROM has been compiled so that when installed in a Model B / B+ 16K ROM socket then only **ADFS 1.33** will be visible and Active.

When Fitted to a Master Series System then it must be installed in a 32K socket where both ROMs will be visible, it is then a case of simply '\*unplugging' **ADFS 1.33** and setting **ADFS 1.53** as the Default Filing System.

**This Firmware ROM can be ignored if you have a BetaGamma Triple MOS fitted to your Master as support is already present.**

**Or indeed if you have a BetaGamma HotRod 64K Model B with a v4 64K MOS ROM fitted.**

**Please enquire for more details, both upgrades are available and allow you to get the best out the Platform.**

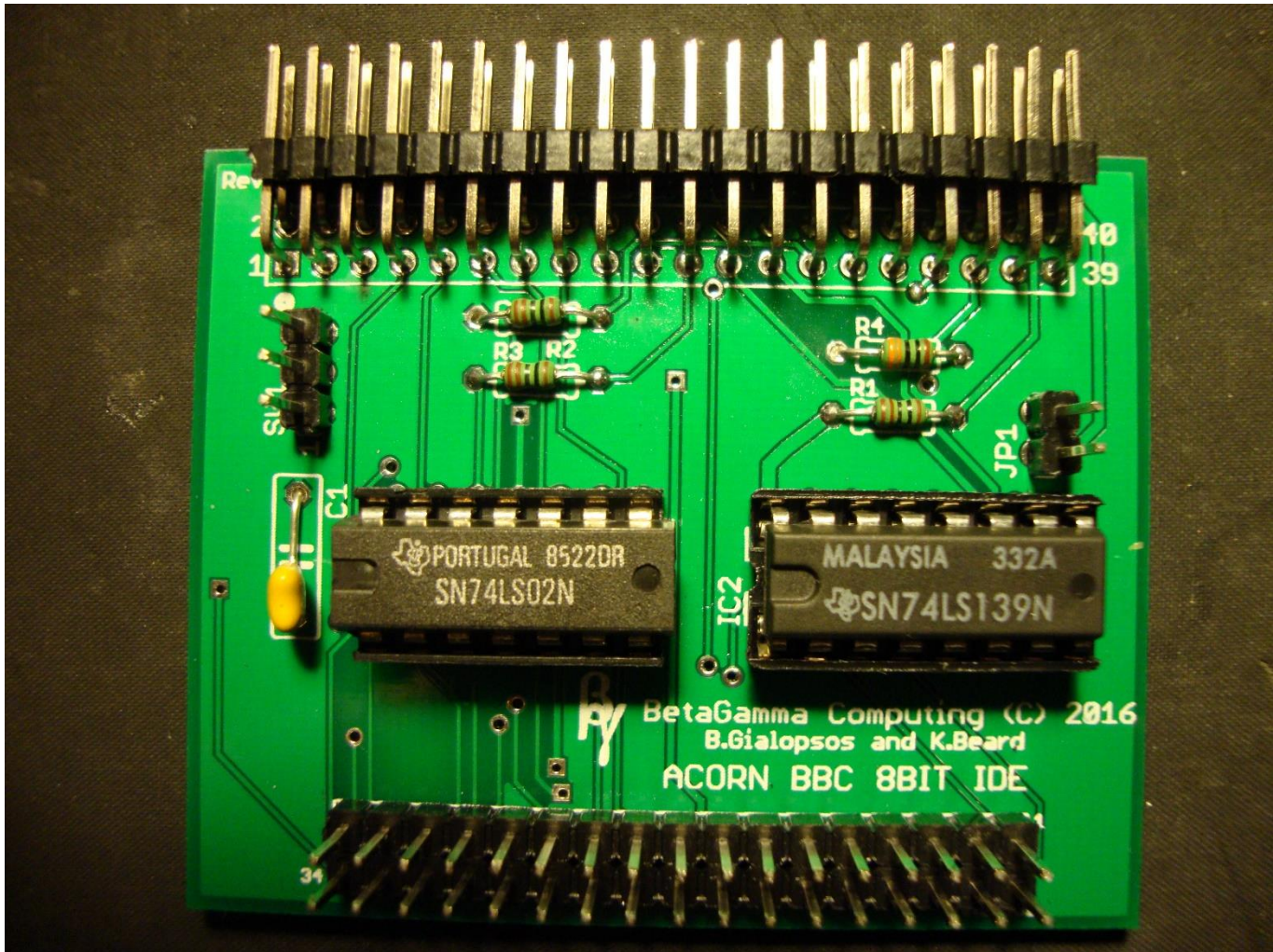
## Disclaimer

BetaGamma Computing cannot be held responsible for any loss of Data or damage to equipment due to the misuse of this product, Care should be taken to ensure the Product is installed in a professional and safe manner.

It is highly recommended that use of a good contact cleaner spray is applied to the Pins of the BBC Microcomputer's 1MHz Bus before connecting this interface, 30 odd years of non-use can lead to oxidised pins and improper or poor contact.

Although the Design has been tested on dozens of Motherboards, it cannot be guaranteed that this product will work with your particular Motherboard. Timing differences and Signal loading can vary tremendously on Model B Microcomputers, to date One Issue 7 board has been found to be incompatible, please contact me for more details or help.

## PCB Connection Details



1. The 3 Pin Header to the left is the Power Supply connection, it requires a regulated +5V DC supply and is Centre Pin Positive with both outer pins being ground, as long as the cable has been correctly wired with the centre wire being +5V then it can be inserted to this Header either way round.
2. The 2 Pin Header to the right is an optional IDE Activity LED header, North being Cathode and South being the Anode connection. IDE Activity can be seen on the CF Adapter however you can additionally add an extra LED so activity can be visible from outside of the machine.

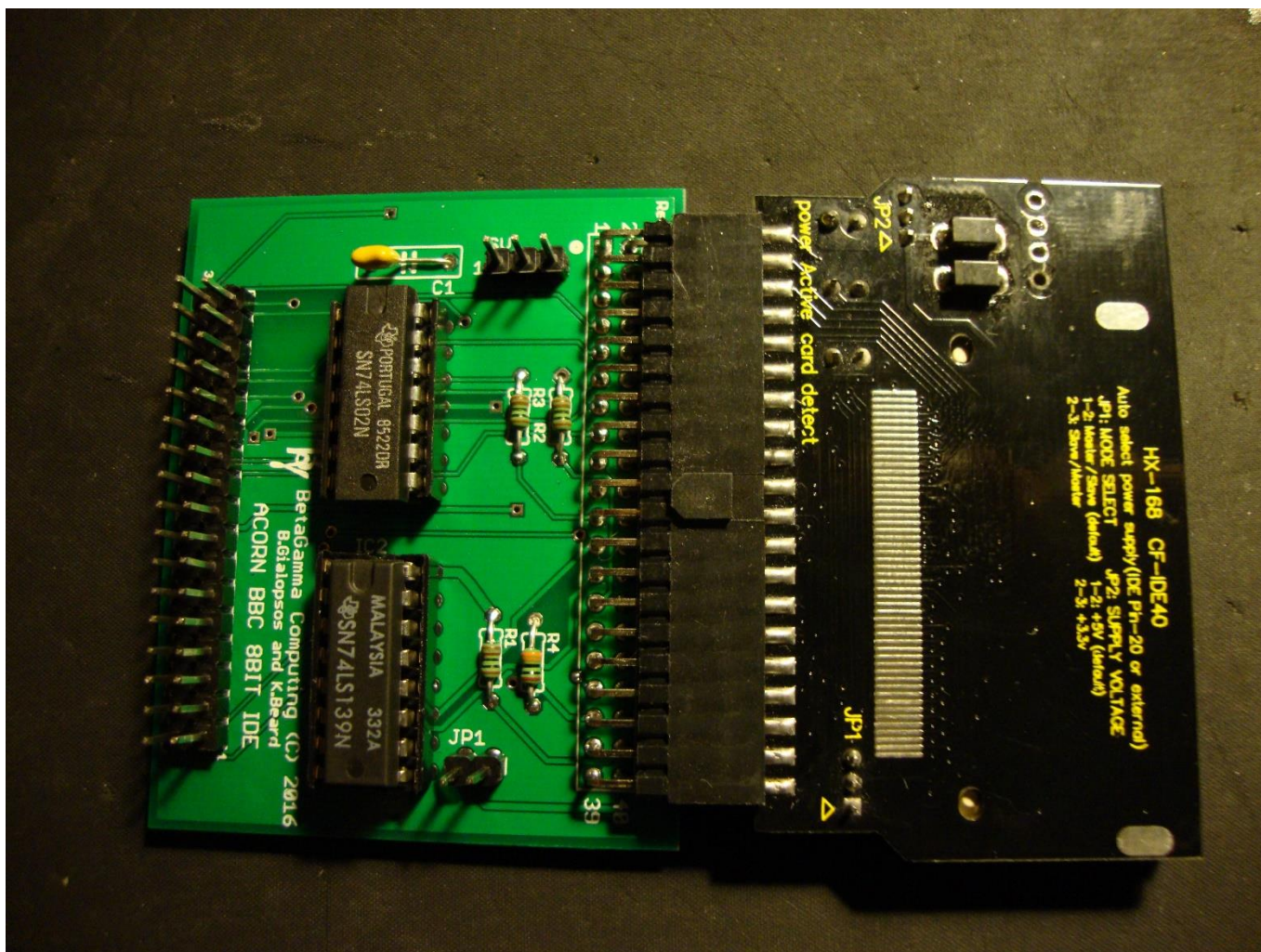
**The Interface has on board current limiting so the external activity LED can be a straight wired LED.**

3. Top 40 Way Header is the IDE connection itself, this can be used with the supplied CF adapter, see further pictures to identify orientation and fitting, or can be used with a standard 40Pin IDE cable to connect to a HDD unit or other CF / SD adapter. Pin 1 is clearly identified on the PCB

**Pin 20 carries +5V DC through for the CF interfaces, ensure you use the correct isolated 40 PIN IDE cables, or simply cut off Pin 20 if the power thru function is not required.**

4. Bottom 34 Way Header is the connection to the Microcomputer's 1MHz Bus using the supplied flat cable, it is not advisable to use a cable longer than 50CM. Pin 1 is clearly identified on the PCB.

Refer to the following picture for the correct orientation when attaching the supplied CF adapter to the IDE Interface.



## Cloud – Dropbox Access

As Mentioned, you can obtain all the resources and software required for using the IDE Interface by accessing the following link.

[https://www.dropbox.com/sh/heggyqil6oubeis/AADBXRJPf0CY9\\_p\\_8s45ngvJa?dl=0](https://www.dropbox.com/sh/heggyqil6oubeis/AADBXRJPf0CY9_p_8s45ngvJa?dl=0)

Updates and hotfixes will be available from this folder and it is advisable to check it routinely for any troubleshooting tips or simply to download updated HD Images.

Standard Acorn documentation such as ADFS Manuals and Installation guides can also be found here.

It is worth checking the ReadME.txt file in the root of this folder for any up to date news, or tips, feedback from users, as well as any last minute omissions.

*I would personally like to Thank You for supporting this product and I hope it meets all your expectations, it is of my own design and has been running happily in Prototype form within my own systems for the last 2 years.*

*Finally, it is now a Professional Product for all to use and Enjoy.*

Bas Gialopsos 05/11/2016

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