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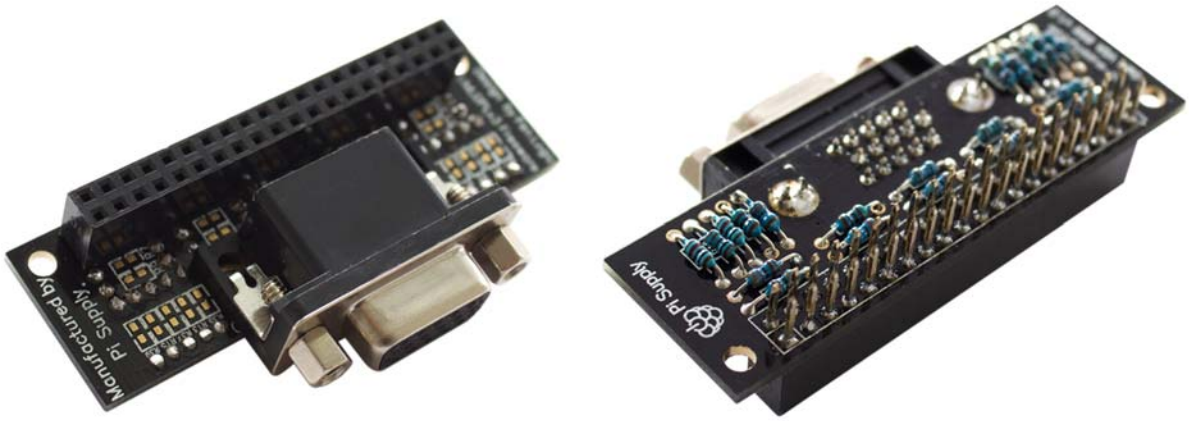
Pi Supply



Gert VGA 666 - Hardware VGA for Raspberry Pi

The Gert VGA 666 (6 bits per colour channel, hence 666) is a breakout/add-on board for the Raspberry Pi Model B+ (will not work with Model A/B as the additional GPIO pins on the Model B+ are required). It is an open source hardware design recently released publicly by Gert van Loo who was one of the hardware engineers that was instrumental in the initial design of the original Raspberry Pi (also one of the chip architects on the BCM2835 chip at the heart of the Raspberry Pi) and someone that many of you may have spoken to at Raspberry Jams or on the Raspberry Pi forums. It is a neat and very useful solution for using a VGA screen/monitor with your Raspberry Pi and is far cheaper than an HDMI to VGA adapter or similar. The VGA connection is driven natively in hardware over the GPIO pins (using a parallel interface) and uses around the same CPU load as the HDMI connection on board. It is capable of displaying 1080p60 VGA video with no CPU load. It is also possible to drive this interface at the same time as the HDMI connection, so a dual screen setup is also possible. This add-on was not possible on the Model A and B pis, because not all of the required pins had been brought out to the GPIO header. Yet another awesome upgrade that the Model B+ has allowed for!

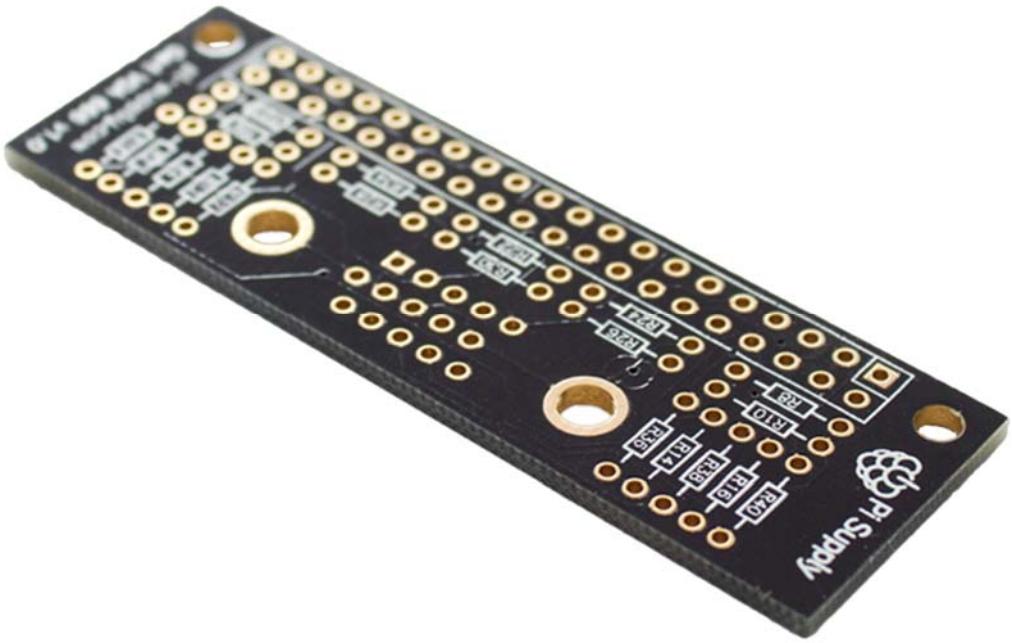
Gert VGA 666 Kit Contents

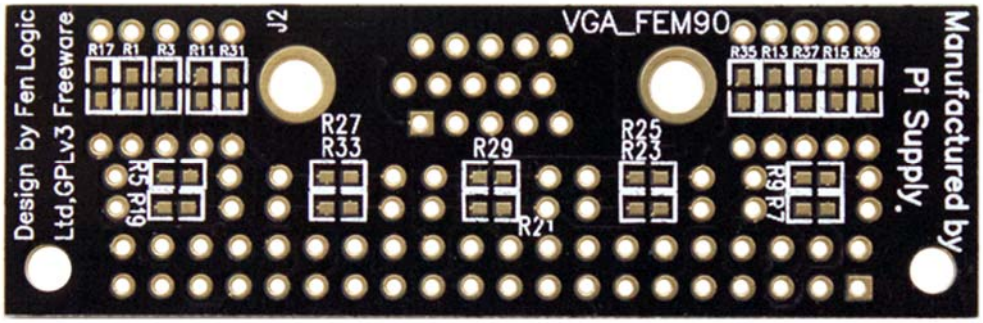
- 1 x Gert VGA 666 PCB
- 1 x 40 pin GPIO header connector
- 1 x 15 pin female VGA connector
- 20 x through hole resistors (2*120 Ohm, 3*499 ohm, 3*1kOhm, 3*2kOhm, 3*4kOhm, 3*8kOhm, 3*16kOhm)
- 2 x Pi Supply Stickers

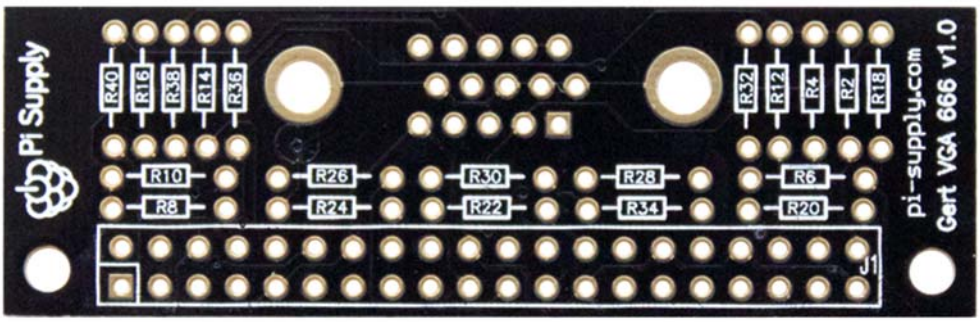
Resources You can find the assembly guide, code repository and further information for the Gert VGA 666 at the following links:

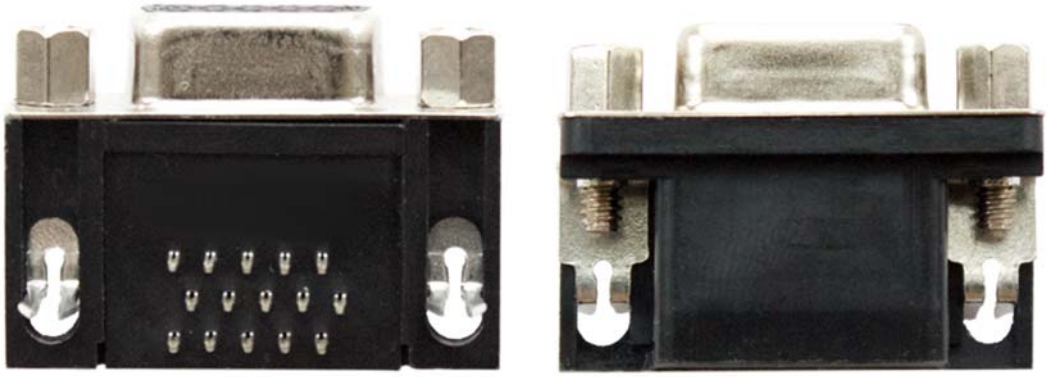
- Raspberry Pi website
- Assembly Tips And Gotchas
- Code repository

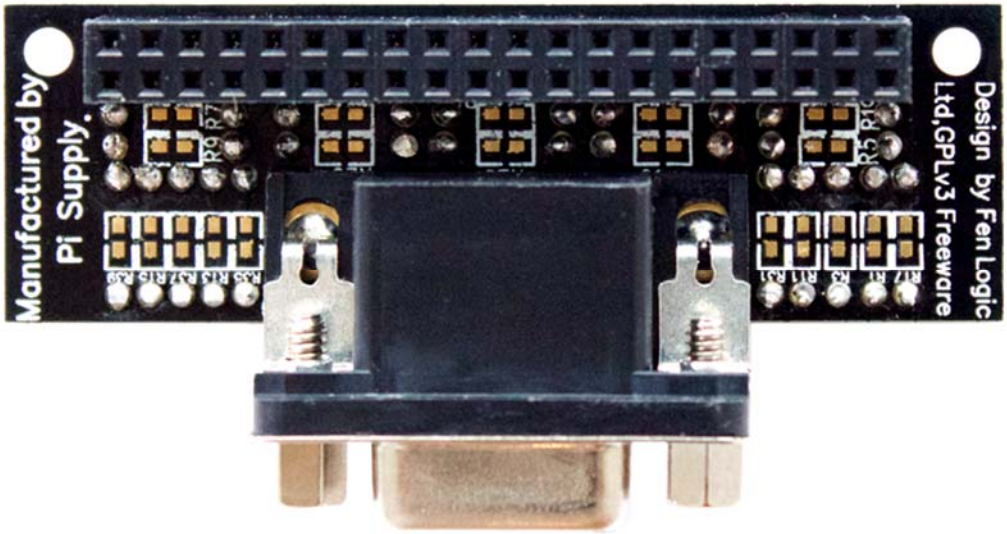
Please note: this add-on on board uses all but 6 of the GPIO pins on the Model B+ Raspberry Pi so it may not be possible to use other add on boards at the same time as the VGA adapter. **Why a kit?** We love electronics kits for a multitude of reasons - they are fun to put together, you get a sense of achievement at the end of it, they are great for learning about soldering and electronics and many many more reasons... At Pi Supply we are quite keen on the whole education and fun aspect of the Raspberry Pi and computing and electronics in general, so we feel that a kit is much more worthwhile to all of our backers. However, you don't need to be a soldering god or an electronics pro to put our kits together - Gert has made this simple enough even for absolute beginners to put together. The images in this project show surface mount resistors, however, for the purposes of the kit we will be supplying all through hole components. There was also a concern about EMC (electromagnetic compatibility) regulations which could cause a problem if made as a fully assembled board. This regulation does not cover home made electronics and so a kit makes more sense for this reason as well.

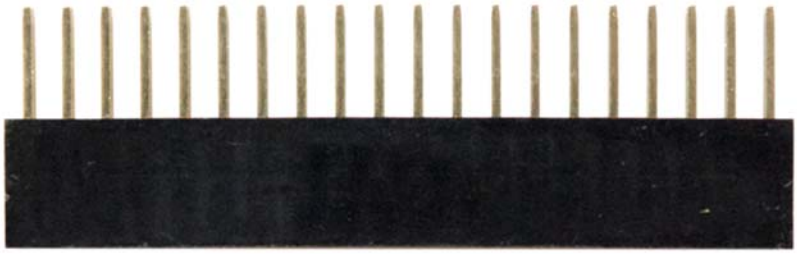

Pi Supply

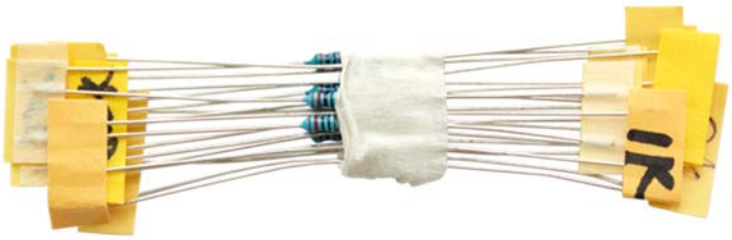

VGA_FEM90
J2
Design by Fen Logic
Ltd,GPLv3 Freeware
Manufactured by
Pi Supply.
R17 R1 R3 R11 R31
R35 R13 R37 R15 R39
R27
R33
R29
R25
R23
R5 R19
R9 R7
R21


Pi Supply
R40 R16 R38 R14 R36
R32 R12 R4 R2 R18
R10
R8
R26
R24
R30
R22
R28
R34
R6
R20
J1
pi-supply.com
Gert VGA 666 v1.0









https://uk.pi-supply.com/products/gert-vga-666-hardware-vga-raspberry-pi 7-31-18