Crystalfontz America, Incorporated

CFA633 v2.0 Hardware / v2.0 Firmware

CFA633 v2.0 Overview

This upgrade is part of our continued commitment to providing reliable, quality, and long production lifetime parts.

The new v2.0 hardware and v2.0 firmware CFA633 will start shipping in volume in first quarter of 2011. The prior version v1.5x will become obsolete after inventory levels are depleted. As of the release of this PCN, pricing for the CFA633 v2.0 remains the same, although it may be adjusted in the future.

The improved v2.0 CFA633 includes significant changes to the hardware and firmware. However, the new version maintains backward compatibility with previous revisions in the following ways:

- The v2.0 hardware is physically the same size as the v1.5x.
- The mounting holes for the v2.0 hardware are the same as the v1.5x.
- The header locations on the v2.0 hardware are the same as the v1.5x.
- The v2.0 firmware is code compatible with v1.9 firmware.

Our primary goal for the new version was backwards compatibility. We ensured that the module was a physical (fit) match to previous versions. There should be no changes needed to your chassis or enclosure. The single exception is that the keypad is approximately 1.5mm taller. The increased height of the keys is based on feedback from many customers and the success of this taller keypad in many projects.

Testing has not revealed any compatibility issues with the new firmware. Firmware changes were made primarily to take advantage of hardware changes. During the revision process, we made diligent efforts to keep backward compatibility.
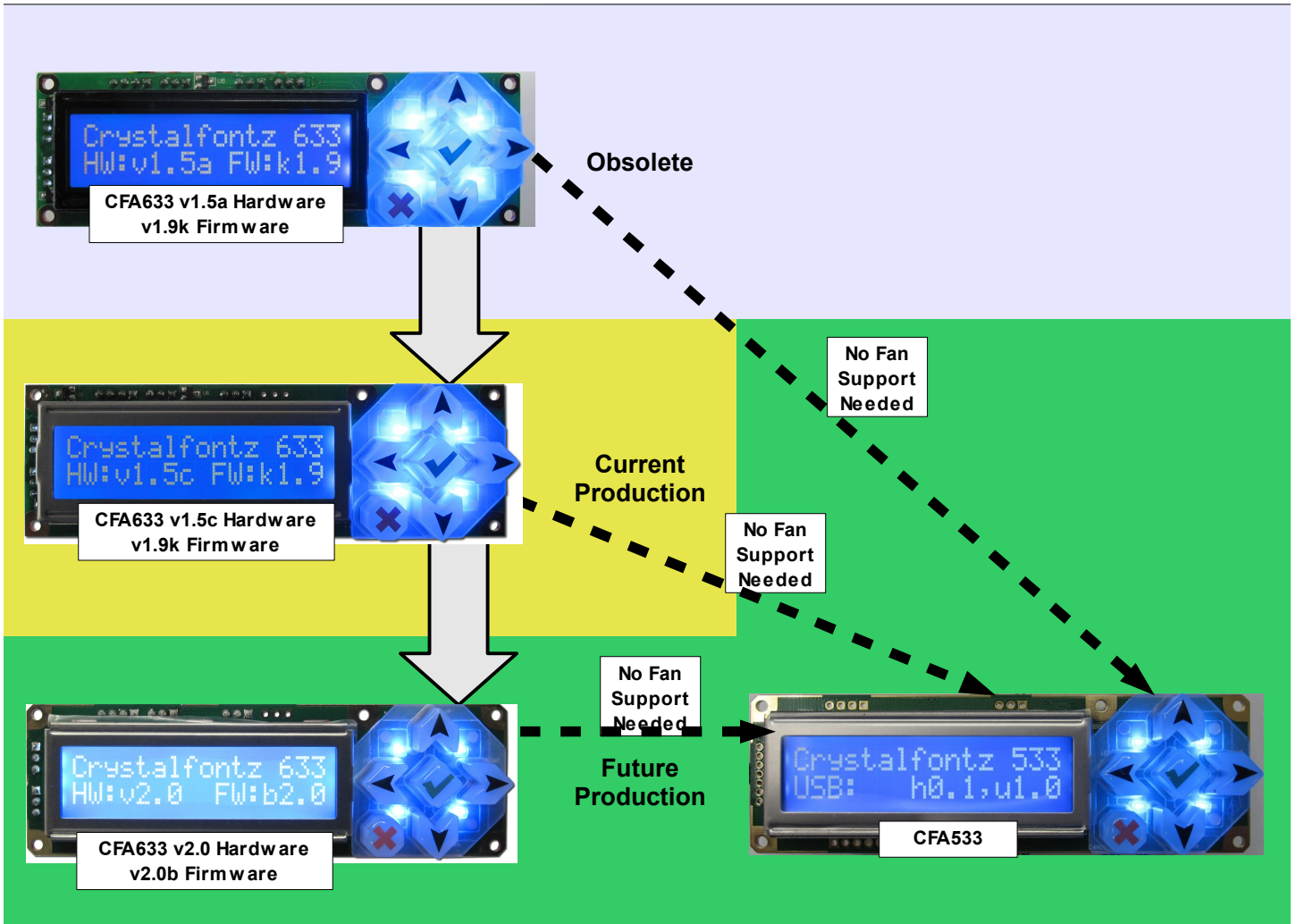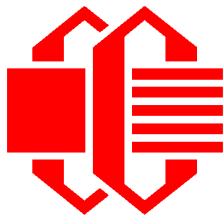
CFA633 v2.0 Part Number Changes

The new CFA633 series modules will have new part numbers. Part number changes also reflect that the LCD glass is now wide temperature instead of normal temperature range.

Old Part Number v1.5x	New Part Number v2.0
CFA633-RMC-KS	CFA633-RDI-KS
CFA633-YYB-KS	CFA633-YYH-KS
CFA633-TMC-KS	CFA633-TMI-KS
CFA633-RMC-KU	CFA633-RDI-KU
CFA633-YYB-KU	CFA633-YYH-KU
CFA633-TMC-KU	CFA633-TMI-KU

CFA633 Product Plan

CFA633 v1.5a Hardware
v1.9k Firmware

Obsolete

No Fan
Support
Needed

CFA633 v1.5c Hardware
v1.9k Firmware

Current
Production

No Fan
Support
Needed

CFA633 v2.0 Hardware
v2.0b Firmware

No Fan
Support
Needed

Future
Production

CFA533

CFA633 v2.0 Firmware Changes

The notable firmware changes are:

- The module will report the new hardware and firmware versions when queried.
- Improved USB behavior when the module is set up for ATX functionality.
- Improvements to the Reset command.
- Corrections of minor firmware bugs.

Because of the work we did to maintain backward compatibility, your first shipment of the new v2.0 CFA633 will be a simple "drop in" replacement for the old version.

CFA633 Hardware Changes

The new v2.0 hardware is based on the CFA533 hardware layout. There are numerous manufacturing and quality advantages to this new layout. The significant changes are:

- USB interface is integrated and no longer requires a daughter board.
- Serial interface components are not loaded on USB interface modules.
- The serial interface is a build option.
- The keypad is now our "tall" keypad that has been used in our CFA533 and CFA635 modules. This adds approximately 1.5mm to the height of the keypad.
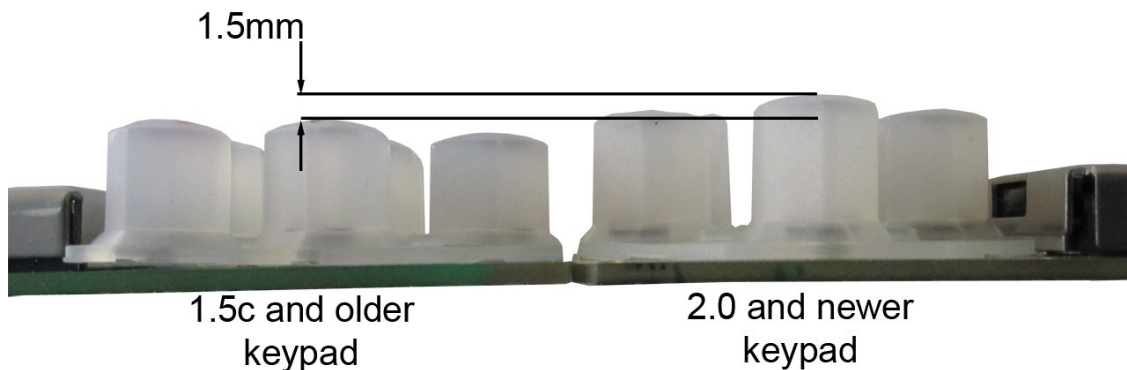

- Improved ESD / Frame ground layout with 4-layer PCB.
- v2.0 CFA633 modules are wide temperature with -20°C ~ +70°C operation / -30°C ~ +80°C storage.
- The CFA633-RMC-KS and CFA633-RMC-KU are double negative FSTN (FFSTN) LCD for improved appearance.
- Improvements to the power on reset circuit.
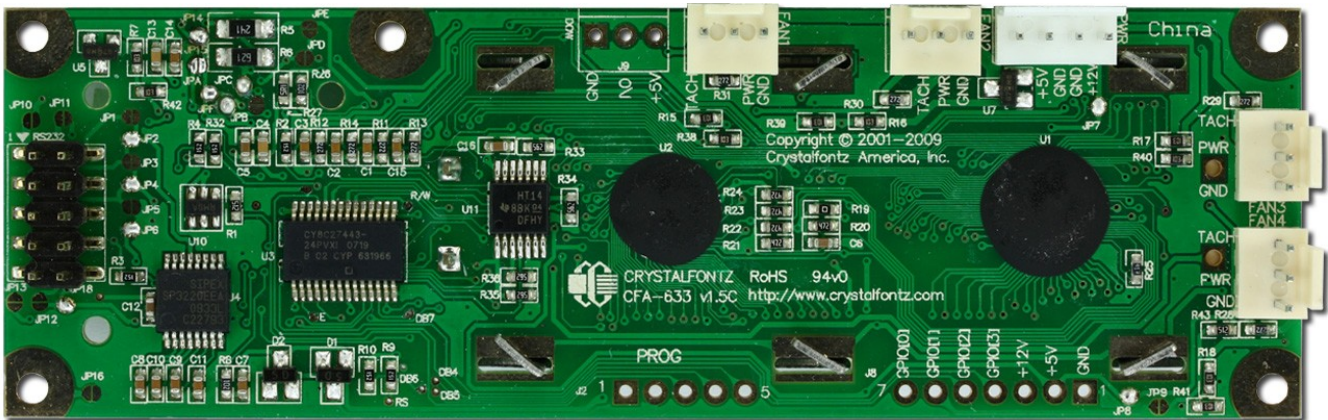- Improved yellow-green LED backlight.
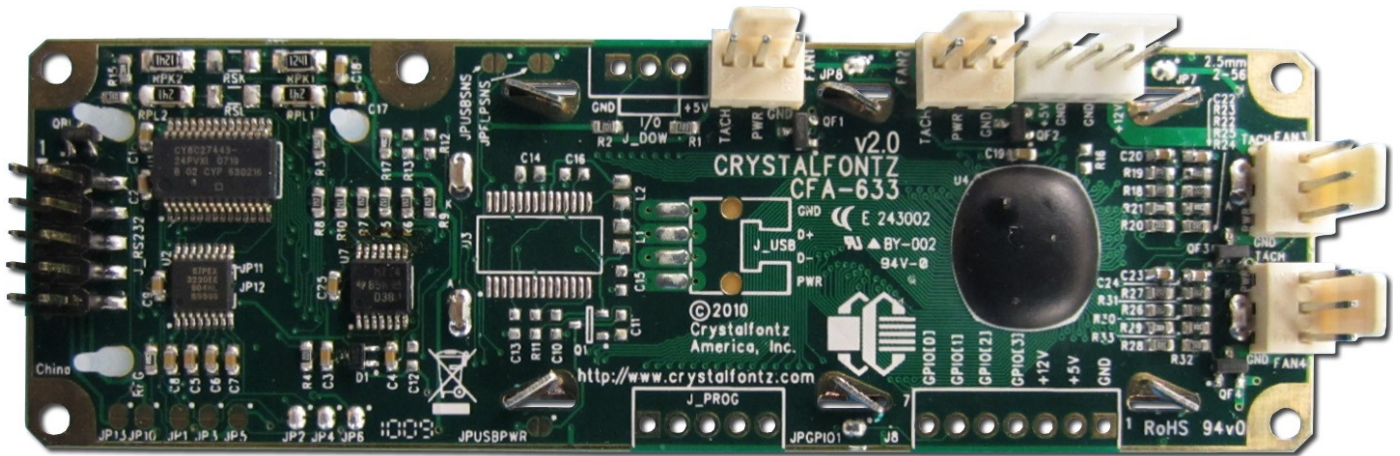
Visual Differences between v1.5c and v2.0 Hardware
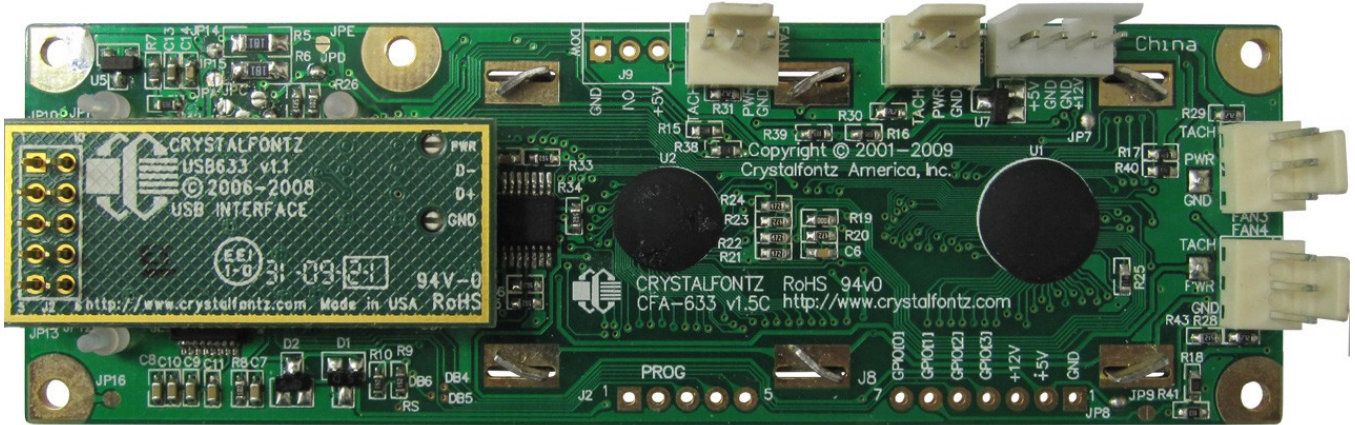
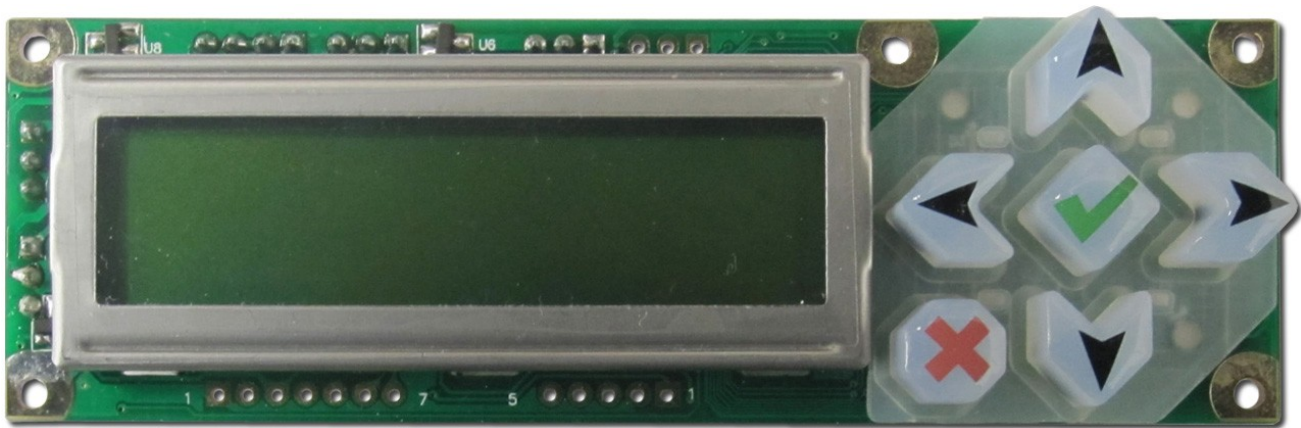**CFA633 v1.5c KU (USB) Back – USB Daughter Board**
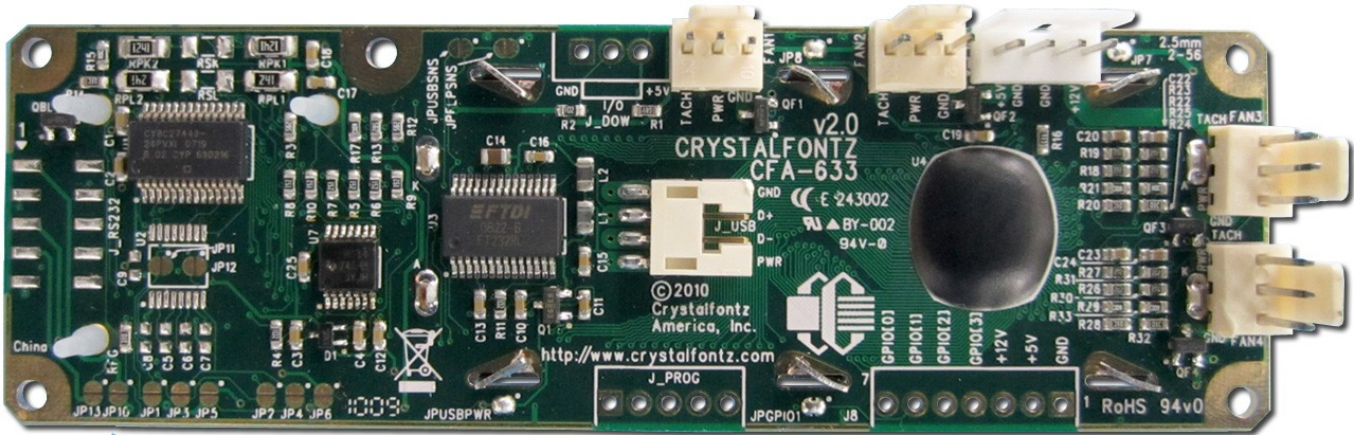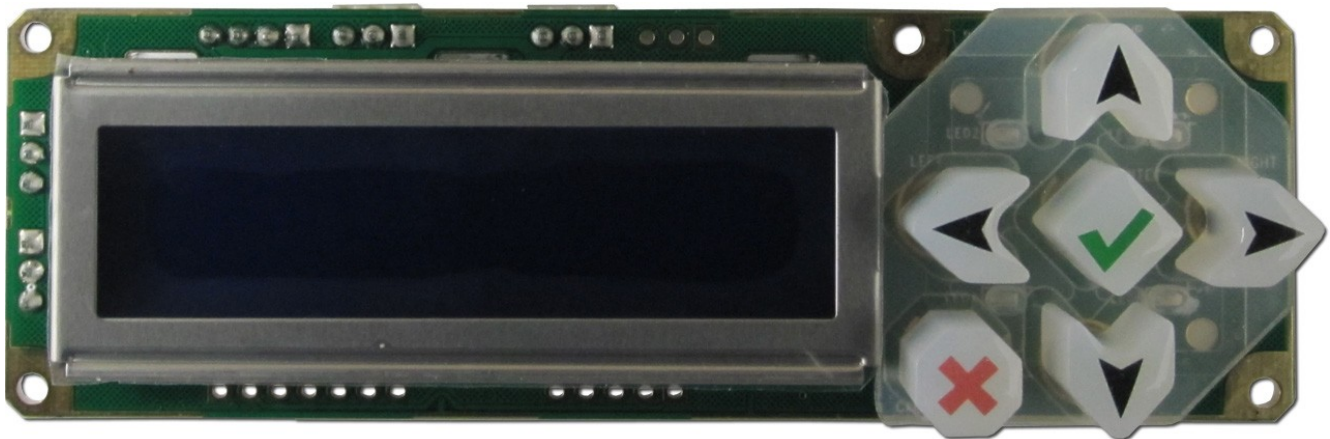

CFA633 v2.0 KU (USB) Back – USB Integrated

CFA633 v1.5c KS (Serial) Back

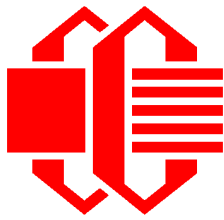**CFA633 v2.0 KS (Serial) Back**

CFA633 v1.5c – Front

CFA633 v2.0 – Front

Crystalfontz America, Incorporated

CFA633 v2.0 FAQs

Q: What if I do not use the fan control feature of the CFA633?
If you do not use the fan control capability of our CFA633, you may want to consider switching to a CFA533. They are available with Serial and USB interfaces, and are a available for immediate shipment for you to test with. Moving to the CFA533 will be a more cost effective solution for your company.

Q: Will the change to wide temperature impact my product?
Since the LCD glass itself is changing, the primary difference you may see a change in your contrast settings. The improved quality of the LCD glass will provide better contrast. The standard settings we make prior to shipping will give the best possible contrast. If your setup alters the standard setting, you may need to make adjustments in your settings.

Q: Will the stainless steel bezel affect the appearance of my product?
If your product has followed proper design guidelines not to expose the bezel, then the appearance of your product will not be changed by the bezel.

Q: Are there any special handling changes to the CFA633 v2.0?
No. We have made every effort to ensure the new CFA633 may be handled in the same way as previous versions.

Q: What if I have a semi-custom or defined part (DP) for my CFA633?
Our engineering and support staff will be contacting you regarding making the transition to the CFA633 v2.0. You will be assigned a new part number that reflects the CFA633 v2.0 as the base part.

Q: What if my semi-custom or defined part (DP) has custom firmware?
Our engineering staff is reviewing custom firmware builds. Some of the features in custom firmware may have been implemented as standard in the new v2.0 firmware.

Q: When can I have an engineering sample for the CFA633 v2.0?
To obtain an engineering sample for the CFA633 v2.0, please send an email to support@crystalfontz.com with your current part number, your name, a complete shipping address, and phone number. Please include any additional questions that you may have. When the CFA633 v2.0 is available, we will process an order for an engineering sample for your evaluation.

Q: Why is the keypad taller?
The taller keypad greatly reduces the chance that a key will be caught behind a front panel if pressed hard. The taller keypad allows for the use of a thicker front panel. The change is part of our overall goal of product improvement and useability.