



Front Panel LCD Expansion Element

Embedded systems typically run in a headless mode however there are applications where a visible status display or operator acknowledgement or simple input is needed. The Front Panel LCD Expansion Element offers a cost effective and space saving alternative to a small VGA or HDMI screen. A 2 line by 20 scrolling character display with 4 configurable input buttons supports a wide range of applications. A Windows 10 service allows an interface between applications and the LCD display. Plugins are available for a range of windows functions. A plugin SDK allows for the development of custom applications. Possible usages include a way to implement Multi-Factor Authorization, System or application status as well as login control.



LCD Front Panel Specifications

- Crystalfontz 20x2 USB LCD with keypad
 - o LED backlit negative mode STN 20x2 LCD
- Integrated LED backlit 4-button translucent silicon keypad
- "key legends" allows user assignment of soft keys to be shown easily on the LCD
- Non-volatile memory capability ("EEPROM"):
 - o Customize the "power-on" display settings
 - o 16-byte "scratch" register for storing IP, netmask, system serial number
- CrystalControl2 software Runs as a service.
 - o CC2 can be active even if no user is logged into the PC.
 - o Support for plugins so that new features can be added
- Plugins (SDK) allows for creation of custom solutions
- Front panel LCD can be combined with different NUC Innovations Expansion Elements
 - o Example 6 port Serial Expansion Element plus Front Panel LCD
- Supports NUC Innovations Internal LTE adapters
 - o LTE CAT M, CAT1 and CAT4
 - o GPS Support with all options

Order Code	Description
90008-00	Intel AB OPEN IO Base - No IO Shield
90017-00	Intel AB LCD Front Panel IO Shield Kit – Note 1

Note 1: Refer to NUC Innovations LTE Adapters Brochure V1-1 for LTE information and order codes.