# d.screen USB 2.0

## Display Solution
### Competence in Digital Visualisation

## USB Controller Board *with optional*

- 4-/5-Wire Touch Controller
- LED-Driver
- LCD-TFT BIAS Power Supply

**d.screen USB 2.0** is a best-price innovative board solution for high volume projects of USB 2.0 connected displays based on DisplayLink`s DL1x5 device family. It is designed to act as a direct interface between USB 2.0 and LCD TFT displays from VGA up to Full-HD / WUSGA / QWXGA. A highly efficient power-management makes the **d.screen USB 2.0** the perfect solution for portable multifunctional monitors. In addition it supports low-cost LCD-TFT panels which requires LCD-BIAS voltages.

**d.screen USB 2.0** is a member of the device product family. As any device of this series this board was designed to meet the extended requirements of embedded applications. A well-balanced hard-/ software combination affords a feature rich product at a competitive price.
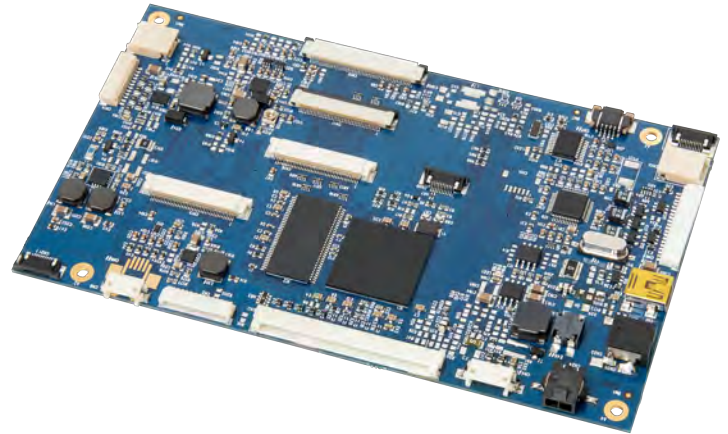


## Features

- USB-Interface
- Supports Resolutions from VGA up to FHD/WUXGA/QWXGA
- Optional LCD TFT *BIAS*\*) Power Supply
- Optional LED-Driver
- On-board USB 2.0 Highspeed Hub
- Optional On-board 4-/5-Wire touch-controller

*\*) LCD BIAS Generation and VCOM Buffer*
The d.screen-USB-2.0 offers a very compact and small on-board power supply solution that provides all three voltages required by thin film transistor (TFT) LCD displays. This enables most cost effective designs which are based on low-cost LCD-TFT-Displays available from the consumer market.
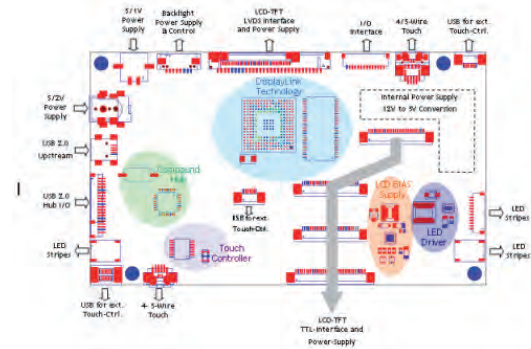


## DisplayLink Technology - DL125/165/195

- ✓ Connect a PC with USB 2.0 port directly to any LCD TFT panel
- ✓ Lossless compression protocol
- ✓ DisplayLink DL2+ adaptive compression scheme ensures a highly interactive, ultra low latency user experience and allows smooth window and cursor movement as well as support for fullscreen video playback
- ✓ Dual DisplayLink DL2+ Decompression engines with DL165/195
- ✓ Fully Microsoft WHQL compliant
- ✓ Supports Windows
- ✓ Supports Apple Mac OS and Linux
- ✓ Mirror mode or extended desktop
- ✓ Supports resolutions up to Full-HD /WUXGA /QWXGA
- ✓ Optional Linux support
- ✓ Up to 6 Displays are supported either Hub or „daisy-chain" connected
- ✓ Supports screen rotations of 90°, 180°, 270°, 360°

- ✓ USB 2.0 High Speed 4-Port Hub (up to 3 ports available)
- ✓ Low power consumption
- ✓ Multiple Transaction Translator (MTT) enables the maximum possible throughput
- ✓ Six, instead of two, non-periodic transaction buffers minimizes potential traffic jamming
- ✓ The whole design is based on state-machine-control to reduce the response delay time

**MICROCHIP**

- ✓ Connect a PC over USB 2.0 to a resistive 4-/5-Wire Touch Screen
- ✓ 10-bit Resolution
- ✓ Supports Windows, Mac and Linux

## Specification
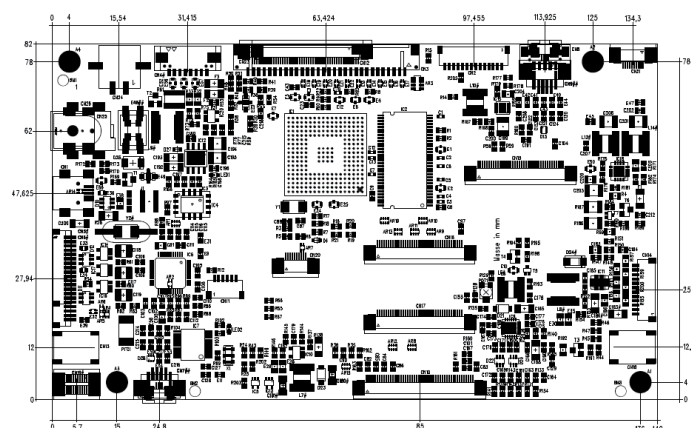


### Supported Panel Resolutions (LVDS / TTL)

|  | DL-195 | DL-165 | DL-125 |
|---|---|---|---|
| Maximum Resolution | 1920 x 1200<br>2048 x 1152 | 1600 x 1200<br>1920 x 1080 | 1280 x 1024<br>1440 x 900 |
| Integrated USB 2.0 | ✓ | ✓ | ✓ |
| Dual Core Decode Engines | ✓ | ✓ | |
| DisplayLink DL 2+ Compression | ✓ | ✓ | ✓ |

**Touch Controller - optional**
- Resistive Technology 4/5-Wire (auto-detection)

**Input Voltage**
- 5/12V (Backlight voltage = Input Voltage)

**Environmental**
- Operating Temperature: 0°C to 50°C
- Relative Humidity: 5%-85%, non condensing