OLEDM204-LGA

File   OLED   Color   Help

Power supply 3,3V
controller SSD1311
I2C + SPI interface
Temperature -40..+80

EA OLED-Simulator manual

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1   General

OLED-Simulator "StartOled.exe"

The program „StartOled.exe [3]" simulates all displays from EA OLED series and some OLEDs from EA Wxxx series. Display setting will be done via menu OLED [6] . The menu Color [7] selects one of various types. This does mean that with this little program all display types and colors can be simulated. This simulator can be used alone but also together with our Test- and Demoboard EA 9781-1USB [9].

Test-Board "EA 9781-1USB"

For easy startup, a USB test board EA 9781-1USB [9] is available that can be connected to a PC. All displays from EA OLED series will put into operation in a flash. There is no hardware or software knowlegde necessary. The program „StartOled.exe [3]" runs also with a connected EA 9781-1USB [9]. Text and pictures (BMP) can be shown directly on the connected display.
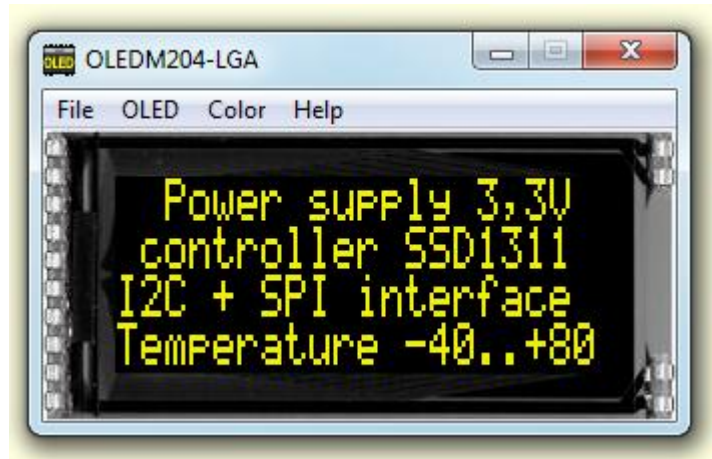
Zeppelinstrasse 19, D-82205 Gilching
Phone +49-8105-778090, Fax +49-8105-778099
http://www.lcd-module.de

2 OLED Simulator

2.1 StartOled.exe V1.0

EA OLED Simulator
StartOled.exe V1.0

You can download the OLED Simulator Software V1.0 free of charge from our Homepage as a .zip file. After unzip you easily can start our StartOled Simulator with a double click on the startoled.exe. It starts up immediately with a windows frame and a tool bar with 4 pull down buttons:

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2.2   File

Under the **File** Pull DownButton you can select special functions in four sections:

| Open File	Open the File-Dialogbox where you can choose a text or graphic file;
Power on Reset	Makes a Reset to the external display, if it is connected with our test board EA 9781-1USB 9 to the USB I/F of the computer; After the Reset the module gets new initializing and the cursor moves to the left upper position, ready to write text to the display from the PC keyboard;
Demo	Starts a Demo with four alternating contents on the screen and optional on the display plugged to our EA 9781-1USB 9 ;
Clear Display	Clears the display and the cursor moves to the left upper position, ready to write text to the display from the PC keyboard;
Show Window	Shows or hides the frame of the OLED Simulation on the PC screen; When the frame with the menu is hidden you can find the menu with a right mouse click in the display area;
Always on Top	The Window of the OLED-Simulator always stays in front of the other software pages, whatever page or other Software you are opening;

Minimize to Tray   Hides the OLED window from the window screen into a small symbol in the tool bar; The <u>EA 9781-1USB</u> ⁹ is still working as before.

Exit   Stores display organization, color that had been changed in the last session and closes the application;

2.3   OLED

Under the **OLED** Pull Down Button you can select different display organisations in two sections:
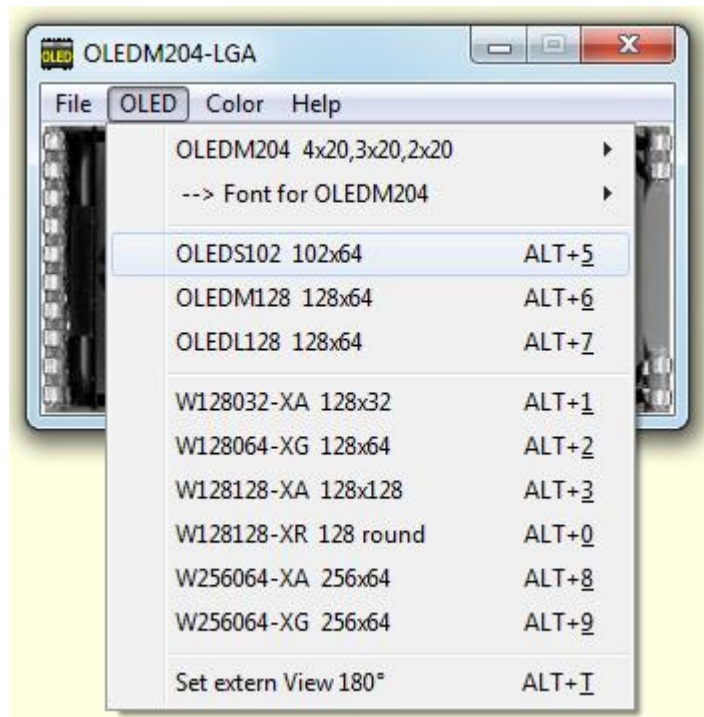
OLEDM204 4x20	4/3/2 lines with 20 digits
Font for OLEDM204	switch between ROMA-european, ROMB-cyrillic and ROMC-japanese

OLEDS102 102x64	Graphicdisplay 102 by 64 dots
OLEDM128 128x64	Graphicdisplay 128 by 64 dots
OLEDL128 128x64	Graphicdisplay 128 by 64 dots

W128032-XA 128x32	Graphicdisplay 128 by 32 dots
W128064-XG 128x64	Graphicdisplay 128 by 64 dots
W128128-XA 128x128	Graphicdisplay 128 by 128 dots
W128128-XR 128 round	Graphicdisplay 128 round
W256064-XA 256x64	Graphicdisplay 256 by 64 dots
W256064-XG 256x64	Graphicdisplay 256 by 64 dots

Set extern TopView	If a graphic display is connected with our demo- and test board EA 9781-1USB [9] to the USB I/F of the computer, content will be rotated by 180°; otherwise this option is grayed-out.

2.4   Color

Under the **Color** Pull Down Button you have the choice to select colors:
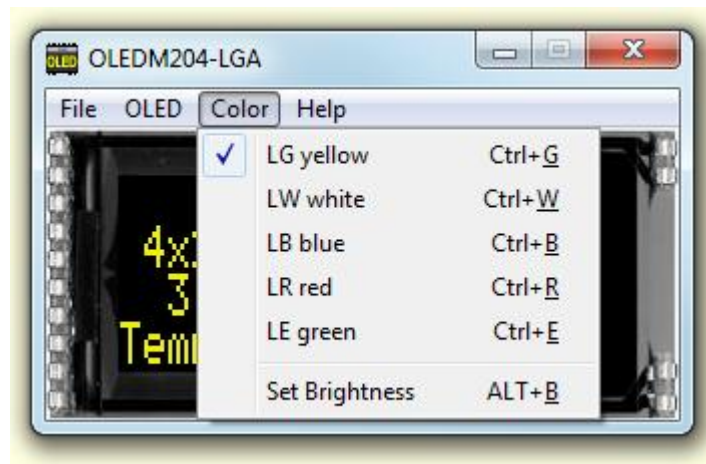
You can select the single color for simulation yellow, white, blue, red and green.
The backlight of a connected OLED with EA 9781-1USB ⌐9⌐ naturally can not change.

Set Brightness
If a display is connected with our test board EA 9781-1USB ⌐9⌐ to the USB I/F of the computer; A window with a sliding resistor is opened on the monitor and you can move it with the mouse; second click on this label closes the sliding resistor window.
Note: Setting will be stored after closing the Simulator;

2.5　Help

Under the **Help** Pull Down Button you have the choice to select this Help-text or an info box:
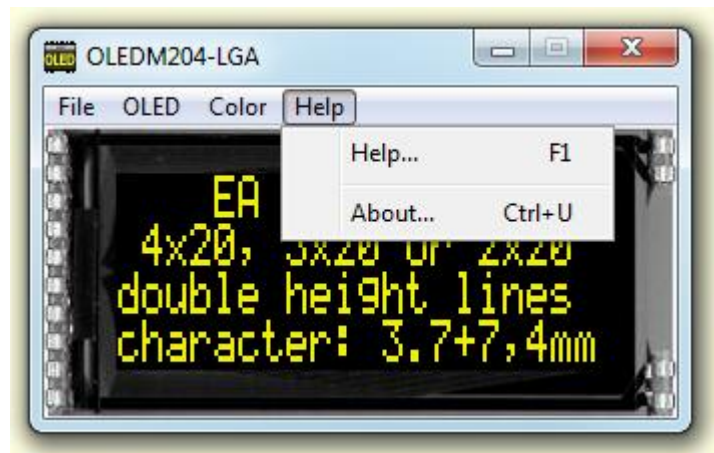
Help	This click shows you the Help-File;

About	This click shows you the software version of the OLED Simulator and whether the USB-Board is successfully connected to the PC;

3   EA 9781-1USB

3.1   Features

With that test board all displays from EA OLED series and some OLEDs from EA Wxxx series will put into operation in a flash. There is no hardware or software knowlegde necessary. The included USB cable performs easyly the connection to the PC. Text and pictures (BMP) can be shown direct on the connected display.

* Connection to USB: simple Usage
* Good for all EA OLED Modules and some from EA Wxxx series
* no power supply necessary
* with demo-text and demo-pictures
* individual text and pictures are supported also
* OLED VCC driving circuit integrated
* inclusive USB cable (1.5m)
* connect an external microcontroller [10] to the EA 9781-1USB

3.2 External Interface

If you want to connect your microcontroller to EA USB 9781-1USB it is necessary to switch off the USB connection.
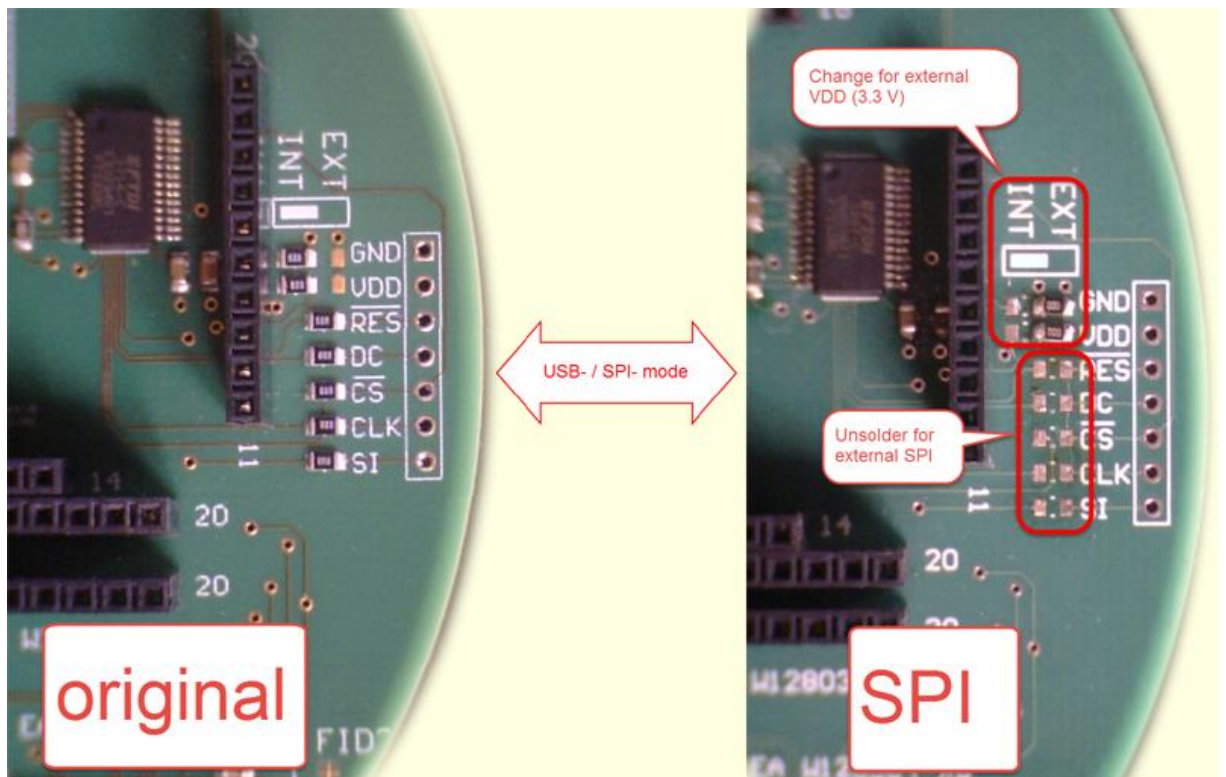
3.3   9781-1 EMPTY

EMPTY - <u>OLEDM204</u> [12] - <u>OLEDS102</u> [13] - <u>OLEDM128</u> [14] - <u>OLEDL128</u> [15]
<u>W128032XA</u> [16] - <u>W128064XG</u> [17] - <u>W128128XA</u> [18] - <u>W128128XR</u> [19]
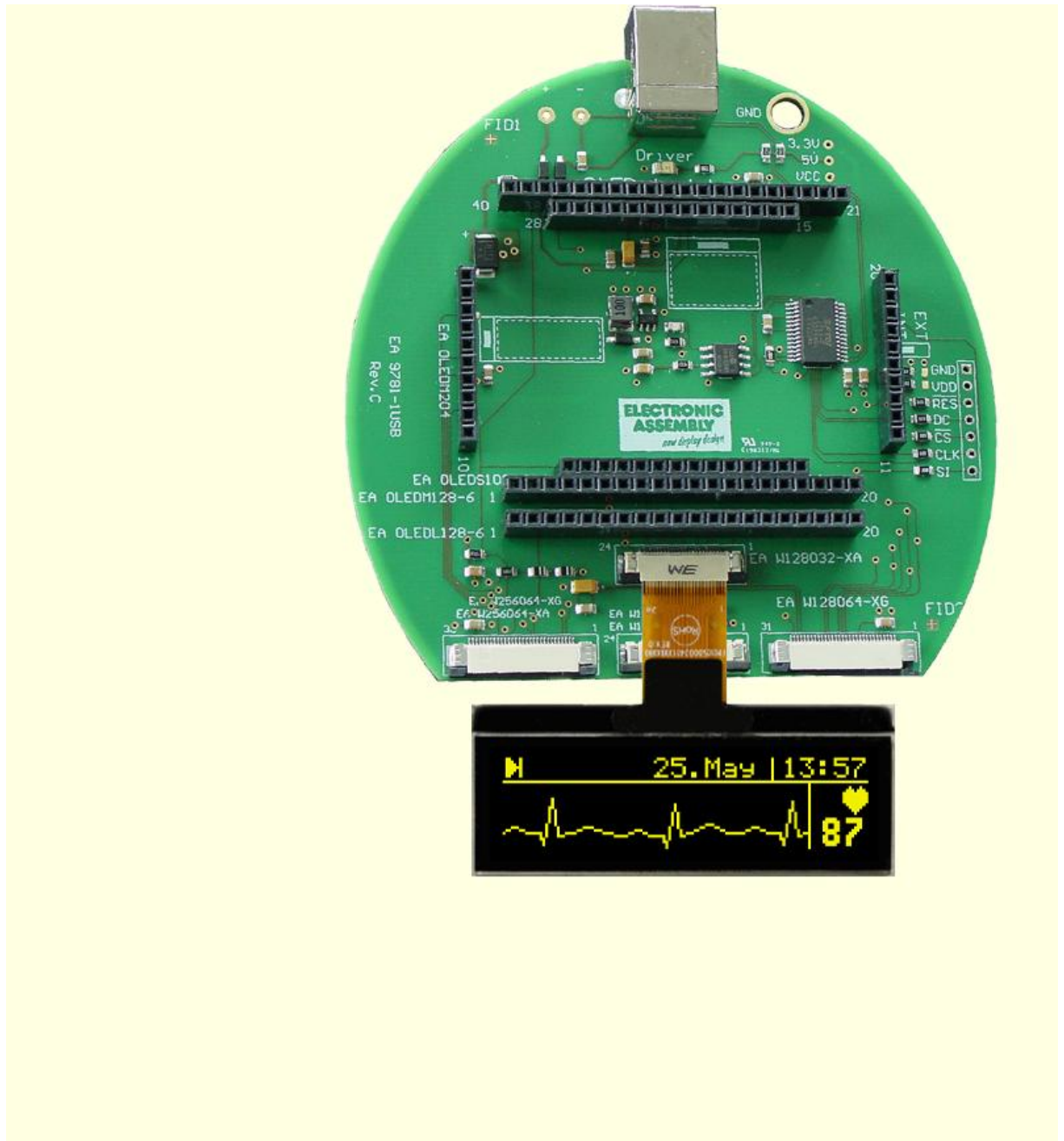<u>W256064XA</u> [20] - <u>W256064XG</u> [21]
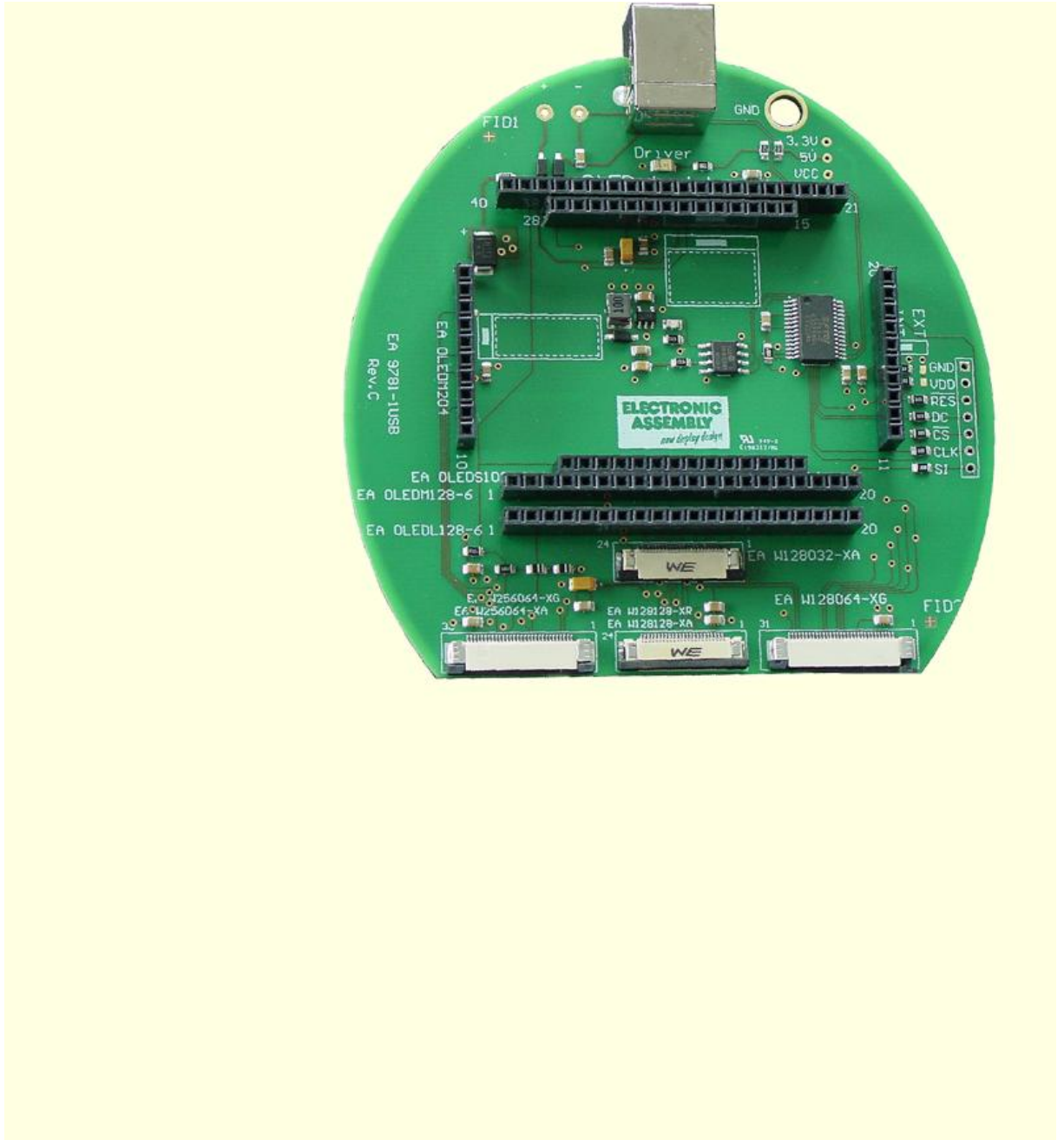
3.4   9781-1 OLEDM204

EMPTY [11] - OLEDM204 - OLEDS102 [13] - OLEDM128 [14] - OLEDL128 [15]
W128032XA [16] - W128064XG [17] - W128128XA [18] - W128128XR [19]
W256064XA [20] - W256064XG [21]

3.5   9781-1 OLEDS102

3.6   9781-1 OLEDM128

EMPTY [11] - OLEDM204 [12] - OLEDS102 [13] - OLEDM128 - OLEDL128 [15]
W128032XA [16] - W128064XG [17] - W128128XA [18] - W128128XR [19]
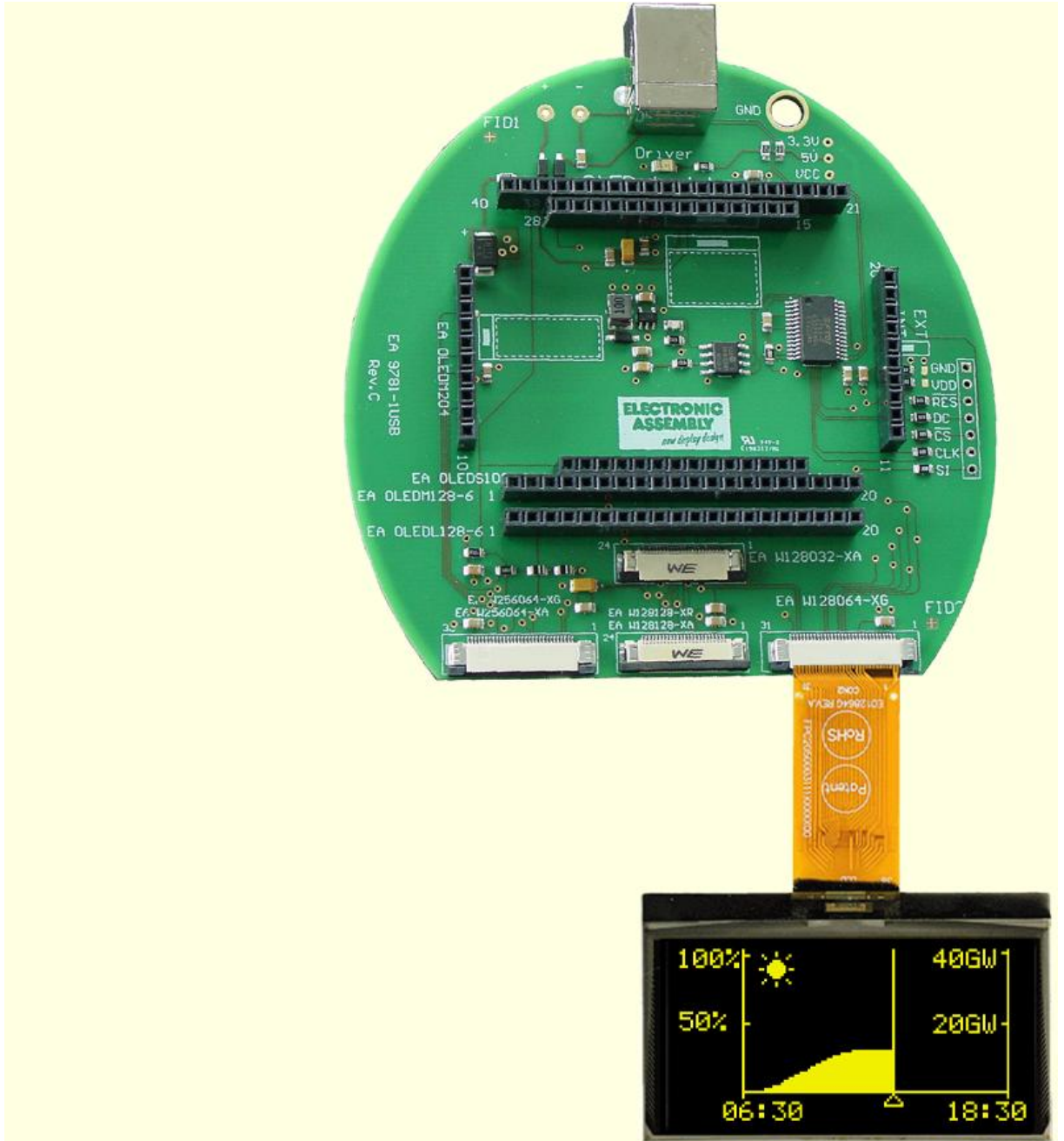W256064XA [20] - W256064XG [21]

3.7   9781-1 OLEDL128

3.8   9781-1 W128032-XA

EMPTY [11] - OLEDM204 [12] - OLEDS102 [13] - OLEDM128 [14] - OLEDL128 [15]
W128032XA - W128064XG [17] - W128128XA [18] - W128128XR [19]
W256064XA [20] - W256064XG [21]

3.9   9781-1 W128064-XG

EMPTY [11] - OLEDM204 [12] - OLEDS102 [13] - OLEDM128 [14] - OLEDL128 [15]
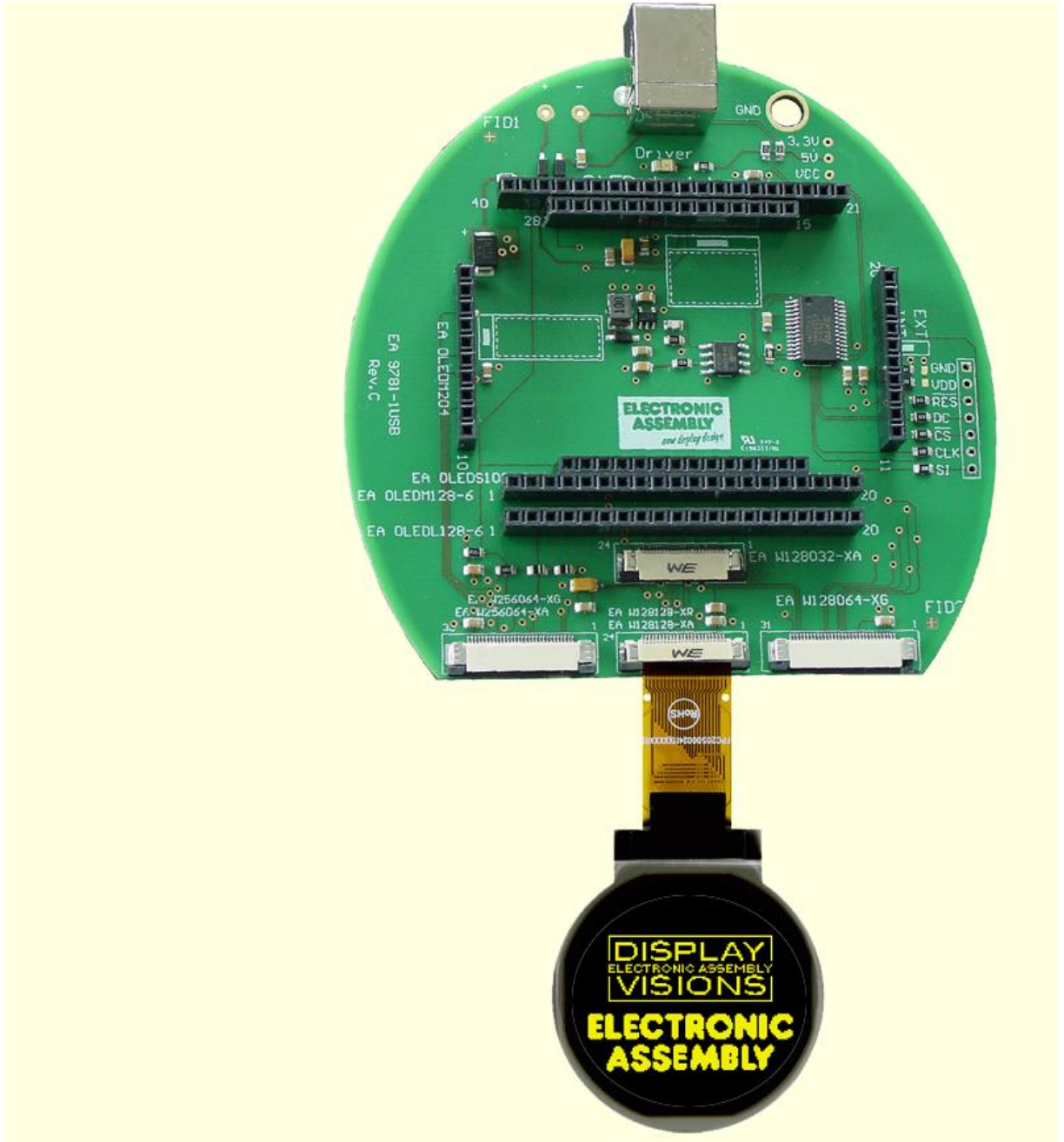W128032XA [16] - W128064XG - W128128XA [18] - W128128XR [19]
W256064XA [20] - W256064XG [21]

3.10   9781-1 W128128-XA

EMPTY [11] - OLEDM204 [12] - OLEDS102 [13] - OLEDM128 [14] - OLEDL128 [15]
W128032XA [16] - W128064XG [17] - W128128XA - W128128XR [19]
W256064XA [20] - W256064XG [21]

3.11   9781-1 W128128-XR
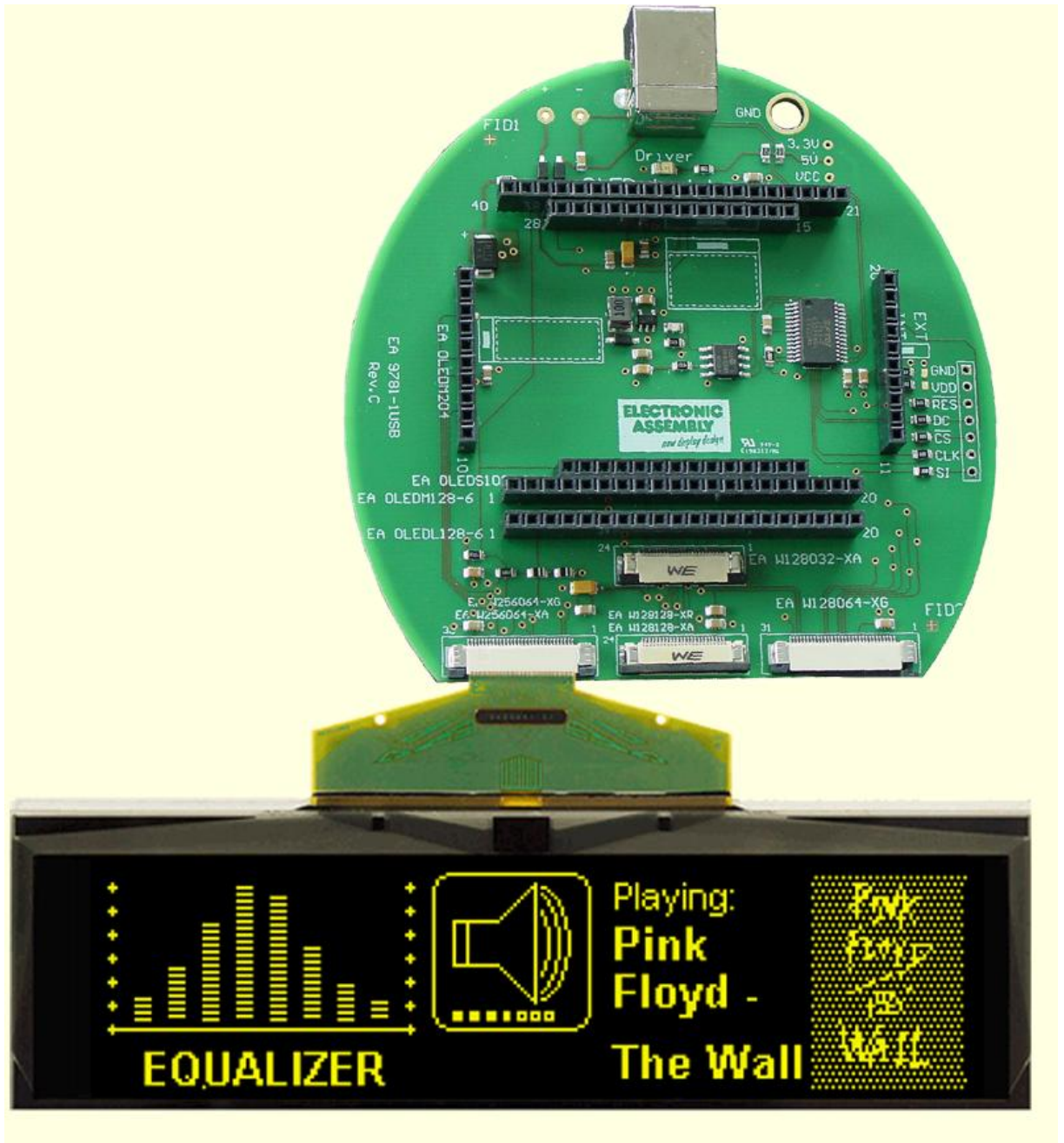
3.12   9781-1 W256064-XA

EMPTY[11] - OLEDM204[12] - OLEDS102[13] - OLEDM128[14] - OLEDL128[15]
W128032XA[16] - W128064XG[17] - W128128XA[18] - W128128XR[19]
W256064XA - W256064XG[21]

3.13   9781-1 W256064-XG

4   Individual Pictures/Text

How to bring Text/Pictures to the Display

By Simulator Software: When you have double clicked to the startoled.exe, immediately a demo page appears on the monitor, when a EA 9781-1USB ⁹ the demo page appears as soon as the right organization is chosen under the OLED ⁶ pull down button;
Additionally you can select under the File ⁴ pull down button the function Demo for other pictures/text;

By Keyboard: Easiest way to get individual text to the displays is to click under File ⁴ to Power on Reset or Clear Display. A full dot cursor appears blinking on the top left position. Now you can type with the keyboard the text you want to show in the display. When the line is full it writes to the next line, when it is at the end of the last line it shifts all content 1 line higher and writes again to the last line.

Individual Pictures/Text: If you want that the demo starts with your own text you can change the text files in the folder StartOled (OLEDM204_x.txt) and save it. Immediately the program will take the new file and show your text.
If you want to show your own graphic file you should copy it into the bitmap files in the folder StartOled (OLEDxxx.bmp) and save it. Immediately the program will take the new file and will show your graphic.
Also you can take a bmp- or text file with the mouse and drop it on the display area, it will include it.

Notes: The bmp-file must be a black and white one without gray scales and must not be bigger than the display resolution. Otherwise you will get an error note on the screen. Only 1pc. EA 9781-1USB ⁹ can be connected to a PC;

5   Troubleshooting

No Demo appears on the display plugged to the EA 9781-1USB

> Please click in the menu <u>Help</u> [8] the button About;
> The display may be damaged;

"Board: not connected" please check:

> Is the USB-cable plugged in well on both sides;
> Is the USB driver installed on the PC;
> The test board <u>EA 9781-1USB</u> [9] may be damaged;

Nothing is seen on the display:

> The display pins are not correct plugged in;
> Is the right display type selected in the <u>OLED</u> [6] Menu;
> The display may be damaged;