



Product End of Life Notification

EOL No: 2015-01-23-01
Report Date: January 23, 2015
Subject: GLK12232-25-SM PCB R2.0 and
GLK12232-25-SM-USB PCB R2.0
End of Life

List of Products to be Obsolete:

GLK12232-25-SM-XXX PCB R2.0
GLK12232-25-SM-USB-XXX PCB R2.0
All Options: -V, -E and all colors

The GLK12232-25-SM PCB R2.0 will be going obsolete; we will be releasing GLX12232A-SM PCB R3.2 and GLX12232A-SM-USB PCB R3.2 as replacements. The new GLX12232A-SM and GLX12232A-SM-USB PCB R3.2 offer more features and enhancements; they are also standardized with other Matrix Orbital displays. **The new parts are estimated to be available by September 2015.**

Module Feature Comparison:

	GLK12232-25-SM PCB R2.0	GLX12232A-SM / GLX12232A-SM-USB PCB R3.2
Piezo Buzzer for user feedback	None	1
Voltage Option	5V, -V	-LV, -VS*
Touch Model Available	No	Yes
External Memory for Fonts/Bitmaps	16KB	256KB
Serial Hardware Flow Control	None	Available
Tri Color Backlight Capable	No	Yes

*-VS is Super Wide Voltage Power, 5V to 15VDC. The -VS is a replacement for both the standard 5V, and -V voltage options.

Schedule of Change:

The new modules GLK12232A-25-SM and GLK12232A-25-SM-USB PCB Rev 3.2 are now available via request purchase. Please contact sales. We recommend any new design and development to be based on the new PCB revision.

The GLK12232-25-SM-XXX (with different color, voltage and temperature options) is available until September 2015 while supplies last.

Last date we will accept purchase orders/e-commerce orders for the GLK12232-25-SM-XXX: September 30, 2015.

Product Change:

The following list of hardware and firmware changes is effective on all the variants of the new GLX12232A-SM. The old PCB R2.0 is now superseded by this new module PCB R3.2, and the old firmware version v6.2 is now superseded by v8.5. The changes are stated to compare the old and the new PCB revisions.

Hardware Changes:

1) GLX12232A-SM in particular:

The 'Protocol Select Jumpers' on the GLX12232A-SM PCB R3.2 includes RS232 and TTL only; I²C is now offered with its own dedicated port.

2) GLX12232A-SM in particular:

The 'Power/Data Connector' on the GLX12232A-SM PCB R3.2 now has been expanded to 6 pins for optional CTS / RTS (hardware flow control) connection (pins 5 and 6 respectively).

3) GLX12232A-SM-USB in particular:

The 'Protocol Select Jumpers' on the GLX12232A-SM-USB PCB R3.2 have been eliminated.

4) GLX12232A-SM-USB in particular:

USB connection is now through a 4 pin connector instead of the USB mini-B connector in PCB R2.0. A cable like this is necessary for USB communication: EXT4PUSB3FT.

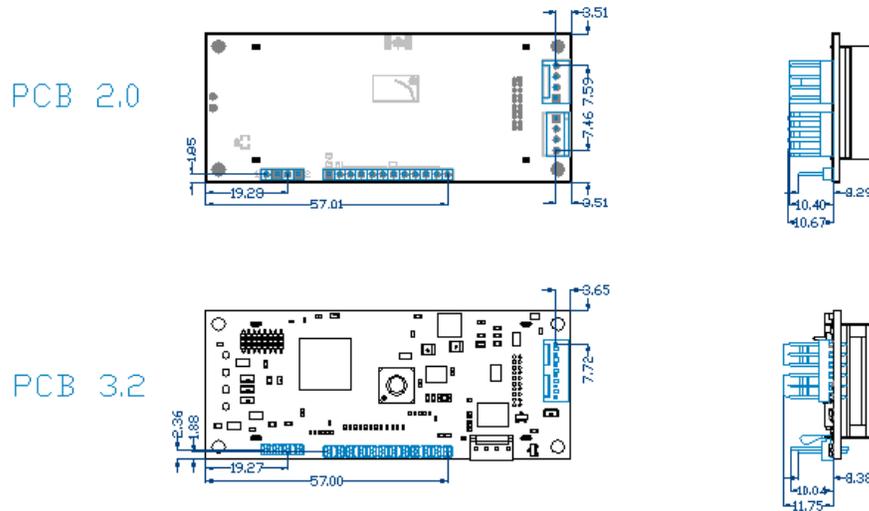
5) A power LED is added to the PCB R3.2 to indicate power through the display, which is good for troubleshooting and evaluation purposes.

6) Much bigger EEPROM capacity is offered on PCB R3.2. This means more fonts and bitmaps can be uploaded (from 16KB on PCB R2.0, we now have 256KB capacity)

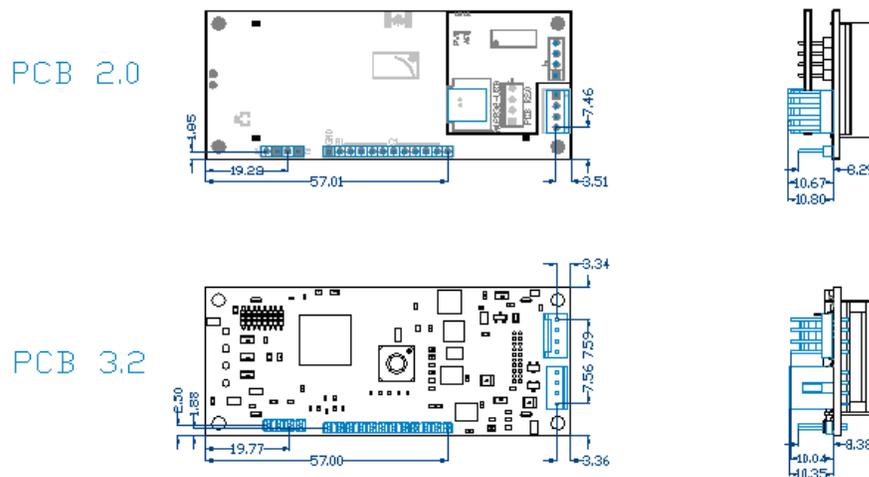
7) Added piezo buzzer that can be run at specified frequency and duration.

- 8) PCB R3.2 now utilizes a new microcontroller running at higher frequency which results to a faster response time from the display.
- 9) Input options – aside from keypad input, we are now able to offer touch input (GLT12232A-SM and GLT12232A-SM-USB) with PCB R3.2.
- 10) Tri color backlight capability – we are now able to offer a -TCI display color option.

11) Minor mechanical dimensions changes:



GLK12232-25-SM PCB R2.0 vs GLX12232A-SM PCB R3.2



GLK12232-25-SM-USB PCB R2.0 vs GLX12232A-SM-USB PCB R3.2

Please refer to
http://www.matrixorbital.ca/manuals/GLK_Series/GLK12232-25-SM/
 for the GLX12232A-SM and-USB PCB R3.2 manual.

Firmware v8.5 (Released on November 21, 2014):

1) File System Command Changes:

To implement the full capacity of the new 256KB flash part we use onboard, it is necessary to change some of the old commands:

Command	Command Structure (Differences in red)
Upload Bitmap File	v8.5 – 254 / 94 / 2 byte File ID / 4 byte File Length / <data string>
	v6.2 – 254 / 94 / 1 byte File ID / 2 byte File Length / <data string>
Draw Bitmap from Memory	v8.5 – 254 / 98 / 2 byte File ID / X / Y
	v6.2 – 254 / 98 / 1 byte File ID / X / Y
Upload a Font File	v8.5 – 254 / 36 / 2 byte File ID / 4 byte File Length / <data string>
	v6.2 – 254 / 36 / 1 byte File ID / 2 byte File Length / <data string>
Set Current Font	v8.5 – 254 / 49 / 2 byte File ID
	v6.2 – 254 / 49 / 1 byte File ID
Delete a File	v8.5 – 254 / 173 / 1 byte Type / 2 byte File ID
	v6.2 – 254 / 173 / 1 byte Type / 1 byte File ID
Download a File	v8.5 – 254 / 178 / 1 byte Type / 2 byte File ID
	v6.2 – 254 / 178 / 1 byte Type / 1 byte File ID
Move a File	v8.5 – 254 / 180 / 1 byte Old Type / 2 byte Old File ID / 1 byte New Type / 2 byte New File ID
	v6.2 – 254 / 180 / 1 byte Old Type / 1 byte Old File ID / 1 byte New Type / 1 byte New File ID

Text in red shows the difference in the command parameters.

For all parameters with 2 or more bytes, LSB is sent first.

2) Additional Commands (for new Hardware Features):

- Keypad models GLK12232A-SM / GLK12232A-SM-USB in particular:
 - Set Keypad Buzzer Beep Command (254 / 182)
 - Scripted Keypad (254 / 141)
- Touch models GLT12232A-SM / GLT12232A-SM-USB in particular:
 - Set Touch Buzzer Beep Command (254 / 182)
 - Scripted Buttons (254 / 142)
 - Set Touch Mode (254 / 135)
 - Set Region Reporting Mode (254 / 136), et al.
- Activate Piezo Buzzer Command (254 / 187)
- ASCII Bell Character (7d) is implemented
- Hardware Flow Control Settings Command (254 / 64)
- Set Tri-Color Backlight Base Color Command (254 / 130)

3) Additional Commands (Firmware Features):

- 9-Slice Bitmaps
- Scripts
- Screen Scroll
- Bar Graphs (updated)
- Animation
- Drawing / Graphic Functions (circles, ellipses, etc)
- Strip charts (updated)
- Text Window, Labels
- Bitmap and 9-Slice Masking
- Xmodem single file and full file system upload and download

4) Field Upgradeable Firmware

We now offer field upgradeable firmware on our new GLX12232A-SM PCB R3.2 and GLX12232A-SM-USB PCB R3.2. Please see the manual for details on how to do this.

Please see the manual for in depth details.

Documentation Revision

Revision	Changes	Date	Author
1.0	Initial release	January 23, 2015	R. Malinis
1.1	Updated Schedule of Change Added PCB Rev 2.0 and 3.2 Differences	June 8, 2015	R. Malinis

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Reference Documents/Attachments:

Location: <http://www.matrixorbital.ca/manuals/>

Approvals:

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