

## UEZGUI-1788-70WVT

# Product Change Notification Form

<b>PCN Number:</b> 20180208-02	<b>Rev:</b> 6.0	<b>Date:</b> 02/08/2018
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**Summary of Change:** Change to same accelerometer as other uEZ GUI family members, incorporate previous rework into new PCB artwork, add optional buzzer, update footprints, add pull-ups to SPI signals, and add ESD protection to JTAG interface.

**Reason for Change:** The accelerometer used in the uEZ GUI Family for almost 10 years has been discontinued by the manufacturer, so we are upgrading to a newer, higher performance part with a long-life cycle. Since the PCB is being updated we are also making other improvements for manufacturability. New and optional footprints give customers more load options. Pull-up resistors increase the reliability of SPI devices and ESD protection devices prevent surges on the JTAG port from damaging the LPC1788.

### Detailed Description of Change:

The accelerometer has been changed from a Freescale MMA7455L to an ST Micro LIS3DH. The LIS3DH has improved user-selectable scales of  $\pm 2g/\pm 4g/\pm 8g/\pm 16g$  and is capable of measuring accelerations with output data rates from 1 Hz to 5 KHz. The LIS3DH allows for a wider operating voltage range of 1.71V to 3.6V. The LIS3DH is an LGA footprint and operates over an extended temperature range from -40 °C to +85 °C. The LIS3DH uses a new I2C address. All documentation for the products affected have been updated to reflect this change. The uEZ® software driver for the accelerometer was updated in version 2.07b to support the LIS3DH and is compatible at the API level. Customer application firmware should not be affected by this change if they are using uEZ version 2.07b or later. Autodetection of the accelerometer by the uEZ driver for correct driver load is an added benefit of using a unique I2C address.

Added an optional buzzer (BZ1) footprint in addition to the current speaker for additional customer flexibility.

Added an optional vertical Pmod compatible connector for customer specific requests.

Incorporated previous rework into artwork (Rev 5.2).

Updated 32KHz crystal footprint to new manufacturer recommended footprint.

Added an optional larger supercap battery backup for the real time clock.

Added pullups onto the SPI signals.

Added ESD protection devices to the JTAG signals.

Changed the unused Serial Flash to 'Do Not Load'.

**Products Affected:**

Affected Product (Rev 3.0 - 5.3)	Recommended Replacement Product (Rev 6.0)
UEZGUI-1788-70WVT	UEZGUI-1788-70WVT
UEZGUI-1788-70WVT-BA	UEZGUI-1788-70WVT-BA

**Availability of new revision stock at distributors:** Estimate 02/20/2018

**Forecasted Key Dates and Milestones:**

02/08/2018: PCN Date, the date this document was released for distribution to customers and distributors.

02/20/2018: Production Date for recommended replacement product, the first date that production quantities of the replacement units will be available for customer orders.

**Reference Documents:** <http://www.teamfdi.com/product-details/uezgui-1788-70wvt#documentation>

1. uEZGUI-1788-70WVT Quick Start Guide.pdf
2. uEZGUI-1788-70WVT Users Manual.pdf
3. uEZGUI-1788-70WVT SCH 6P0.pdf
4. uEZGUI-1788-70WVT Rev 6p0 ECO.pdf

**FDI Contacts:**

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