

## UEZGUI-4088-43WQ# Series Product Change Notification Form

<b>PCN Number:</b> 20180208-01	<b>Rev:</b> 2.0	<b>Date:</b> 02/08/2018
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**Summary of Change:** Update this series of products to include an enhanced LCD, a new long life accelerometer that is also used in other uEZ GUI family members and enhancing the off-board speaker connector.

**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. We updated the off-board speaker connector for better part retention and compatibility with connector options, upgraded the LCD to a newer version with enhanced specifications and modified the crystal oscillator footprint to better match the manufacturer recommendations.

### Detailed Description of Change:

The accelerometer (U14) 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  $-40\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$ .

The LIS3DH uses a new I2C address. All documentation for the products affected have been updated to reflect this change. The uEZ<sup>®</sup> 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 as long as they use 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.

The off-board speaker connector (J7) footprint was changed by enlarging solder pads resulting in better part retention and allowing for multiple connector options to be used. The new connector footprint is compatible with the existing connector.

For the PCAP model (UEZGUI-4088-43WQN), the LCD was upgraded from Newhaven Display NHD-4.3-480272EF-ATXL#-CTP to NHD-4.3-480272EF-ASXV#-CTP. The new display has better typical viewing angles of 75 degrees (previous was 70 degrees) and brightness of 700 nits typical (previous was 340 nits). Resistive and non-touch uEZ GUI models in this series were initially released with the enhanced displays, so they are already upgraded.

Per new recommended manufacturer specifications, the 32.768 KHz crystal (Y3) PCB footprint has been updated to 1.5mm between pads, a pad width of 1.0mm and a pad length of 1.8mm.

Added an optional vertical PMOD socket for customer special request.

**Products Affected:**

Affected Product (Rev 1.3)	Recommended Replacement Product (Rev 2.0)
UEZGUI-4088-43WQN	UEZGUI-4088-43WQN
UEZGUI-4088-43WQN-BA	UEZGUI-4088-43WQN-BA
UEZGUI-4088-43WQN-NXP	UEZGUI-4088-43WQN-NXP
UEZGUI-4088-43WQE	UEZGUI-4088-43WQE
UEZGUI-4088-43WQE-BA	UEZGUI-4088-43WQE-BA
UEZGUI-4088-43WQH	UEZGUI-4088-43WQH
UEZGUI-4088-43WQH-BA	UEZGUI-4088-43WQH-BA

**Availability of new revision stock at distributors:**

Distributors will continue to sell through their existing available stock before filling customers' orders with stock of the new revision of the product.

**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 order.

**Reference Documents:** <http://www.teamfdi.com/product-details/uezgui-4088-43wqn#documentation>

<http://www.teamfdi.com/product-details/uezgui-4088-43wqe#documentation>

<http://www.teamfdi.com/product-details/uezgui-4088-43wqh#documentation>

1. [Freescale Product Discontinuance Notice MMA7455L](#) [LINK]
2. uEZGUI-4088-43WQN\_H\_E Users Manual.pdf
3. uEZGUI-4088-43WQN\_SCH\_2.pdf
4. uEZGUI-4088-43WQN Rev 2 ECO

**FDI Contacts:**

For additional information or details please contact any of our franchised Distributors including Avnet, Digi-Key, Mouser, and WPG Americas, Inc. Or contact the Product Team at FDI directly via email at [support@teamfdi.com](mailto:support@teamfdi.com) or via phone at 256-883-1240 or fax at 256-883-1241.