



# MSP430-LED8x8 BOOSTERPACK development board

**Users Manual** 



All boards produced by Olimex are ROHS compliant

Rev. Initial, September 2011 Copyright(c) 2011, OLIMEX Ltd, All rights reserved

#### **INTRODUCTION**

MSP430-LED8x8 BOOSTERPACK is development board for MSP430-EXP430G2 LaunchPad from Texas Instruments. MSP430-LED8x8 BOOSTERPACK has 8x8 LED MATRIX, at which can be visualized captions or pictures. If you want to visualize longer captions, you can extend the board by connecting several MOD-LED8x8 boards to it. The board has also microphone for detecting sounds and buzzer for playing sounds.

#### **BOARD FEATURES**

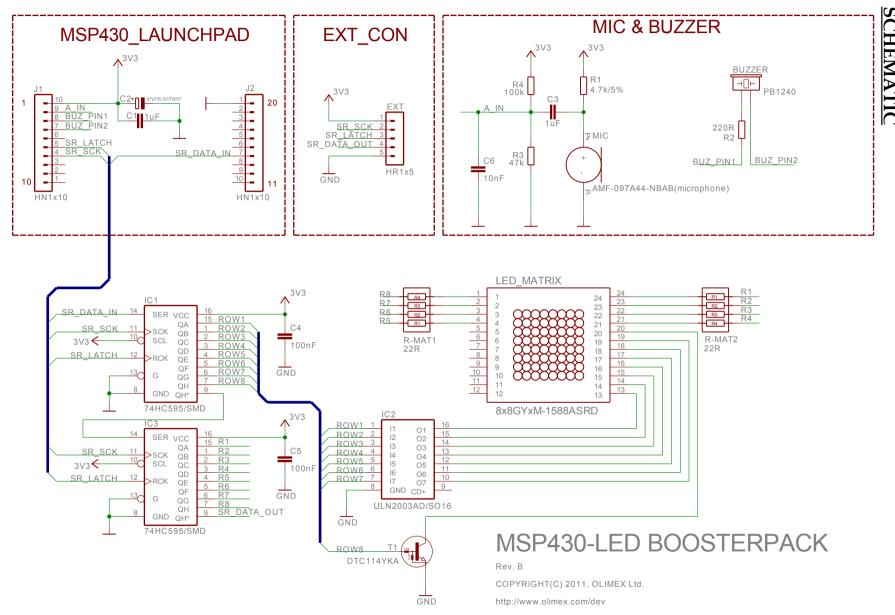
- LED MATRIX 8x8 51x51mm
- BUZZER
- Microphone
- Extension connector
- MSP430\_LAUNCHPAD connectors for connecting to MSP-EXP430G2 board
- PCB: FR-4, 1.5 mm (0,062"), solder mask, silkscreen component print
- Dimensions: 65.75x 51.00mm ( 2.59x 2.01")

#### **ELECTROSTATIC WARNING**

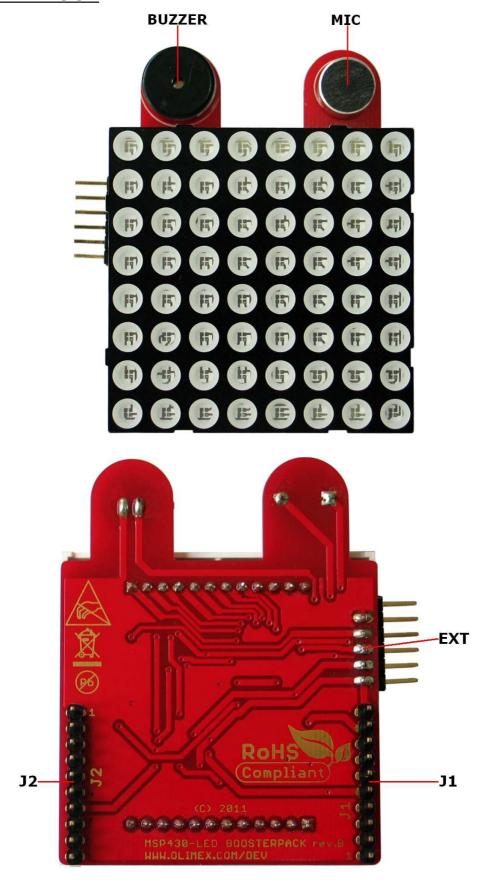
The MSP430-LED8x8 BOOSTERPACK board is shipped in protective anti-static packaging. The board must not be subject to high electrostatic potentials. General practice for working with static sensitive devices should be applied when working with this board.

#### **BOARD USE REQUIREMENTS**

**Hardware:** MSP430 LaunchPad (MSP-EXP430G2) from Texas Instruments; MOD-LED8x8



## **BOARD LAYOUT**



Page 4

#### **POWER SUPPLY CIRCUIT**

MSP430-LED8x8 BOOSTERPACK can take power from MSP-EXP430G2 via J1 connector pin 10 (VCC) and J2 connector pin 1 (GND).

The board power consumption is: about 90 mA with all peripherals running at full speed.

## **JUMPER DESCRIPTION**

There are no jumpers on this board.

## Input/Output

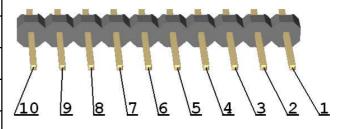
LED MATRIX 8x8 51x51mm

**BUZZER** – connected to J1 connector pins 7 (BUZ\_PIN2) and 8 (BUZ\_PIN1).

## **CONNECTOR DESCRIPTIONS**

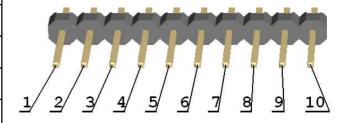
## <u>J1</u>

Pin #	Signal Name
1	Not Connected
2	Not Connected
3	Not Connected
4	SR_SCK
5	SR_LATCH
6	Not Connected
7	BUZ_PIN2
8	BUZ_PIN1
9	A_IN
10	VCC



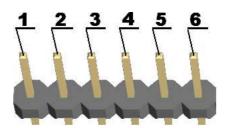
# <u>J2</u>

Pin #	Signal Name
1	GND
2	Not Connected
3	Not Connected
4	Not Connected
5	Not Connected
6	Not Connected
7	SR_DATA_IN
8	Not Connected
9	Not Connected
10	Not Connected



# **EXT**

Pin #	Signal Name
1	VCC
2	SR_SCK
3	SR_LATCH
4	SR_DATA_OUT
5	GND
6	Not Connected

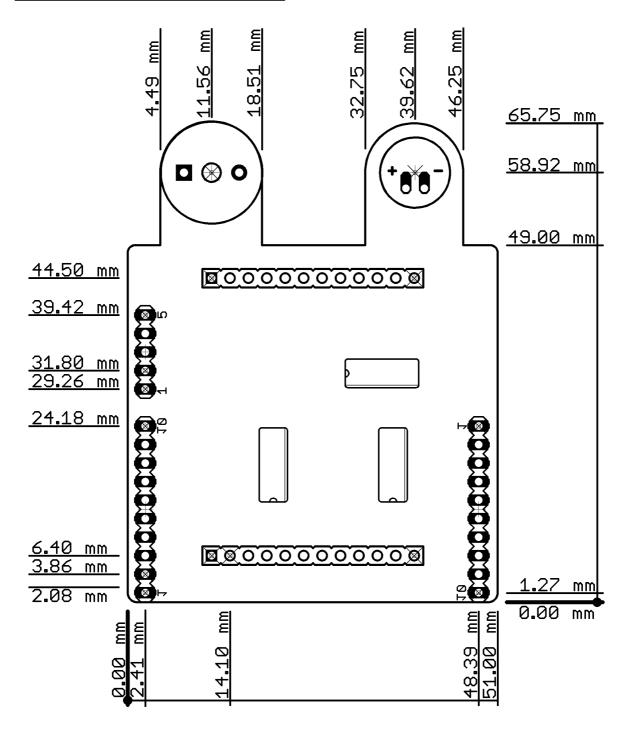


# <u>MIC</u>

Pin #	Signal Name
1	A_IN
2	GND



## **MECHANICAL DIMENSIONS**



# **AVAILABLE DEMO SOFTWARE**

-  $\underline{\text{MSP430-LED-BOOSTERPACK}}$  - demonstrates reactions of the board to clapping with different violence by displaying several emoticons and playing sound.

## **ORDER CODE**

MSP430-LED8x8 BOOSTERPACK – assembled and tested (no kit, no soldering required)

How to order?

You can order to us directly or by any of our distributors.

Check our web www.olimex.com/dev for more info.

#### **Revision history:**

Board's Revision - Rev. B created June 2011

Manual's Revision - Rev. Initial created September 2011

#### Disclaimer

© 2011 Olimex Ltd. All rights reserved. Olimex®, logo and combinations thereof, are registered trademarks of Olimex Ltd. Other terms and product names may be trademarks of others.

The information in this document is provided in connection with Olimex products. No license, express or implied or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Olimex products.

Neither the whole nor any part of the information contained in or the product described in this document may be adapted or reproduced in any material from except with the prior written permission of the copyright holder.

The product described in this document is subject to continuous development and improvements. All particulars of the product and its use contained in this document are given by OLIMEX in good faith. However all warranties implied or expressed including but not limited to implied warranties of merchantability or fitness for purpose are excluded.

This document is intended only to assist the reader in the use of the product. OLIMEX Ltd. shall not be liable for any loss or damage arising from the use of any information in this document or any error or omission in such information or any incorrect use of the product.