**CPU Installation** 

CPU Pin1

Socket Keys

**CPU Keys** 

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FOR YOUR SYSTEM TO WORK PROPERLY, PLEASE DOWNLOAD APPROPRIATE DRIVERS/IMAGES/USER'S MANUAL FROM THE LINKS BELOW:

- Manuals: http://www.supermicro.com/support/manuals/
- Drivers & Utilities: http://www.supermicro.com/wftp
- Safety: http://www.supermicro.com/about/policies/safety\_information.cfm One (1) Quick Reference Guide (MNL-1701-QRG)

#### PACKAGE CONTENTS

- One (1) Supermicro Motherboard
- Six (6) SATA Cables (CBL-0044L) One (1) I/O Shield (MCP-260-00077-0N)

#### WARNING: This product can expose you to chemicals includin lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

# **Motherboard Layout and Features** SUPER X10DAL-Rev. 1.02 CPU2 BIOS S-SATA3 (°) PCH CPU1 6.9 I-SATA I-SATA I-SATA FAN3 (°)

## = mounting hole **Front Control Panel (JF1) Heatsink Installation** Install the screws in the sequence as shown FP PWRLED 3.3 V HDD LED UID Switch NIC1 Link LED NIC1 Activity LED NIC2 Activity LED NIC2 Link LED < OH/Fan Fail/ UID LED PWR Fail LED) Screw#1 Power Fail LED 3.3V Screw#2 Screw#3 Motherboard / Note: Graphics shown in this quick reference guide are for illustration only. Your components may or may not look exactly the same as the drawings shown in this quide.

| Jumpers, 0                              | Connectors, a                                       | and LED II                 | ndicators   |
|---|---|----------------------------|---|
|   |   | Jumpers                    |   |
| Jumper                                  | Description   |                            | Default Setting   |
| JBT1                                    | Clear CMOS  |                            | See Chapter 2   |
| JI <sup>12</sup> C1/JI <sup>12</sup> C2 | SMBus to PCI-E Slots                                |                            | Pins 2-3 (Disabled)   |
| JPAC1                                   | Audio Enable  |                            | Pins 1-2 (Enabled)  |
| JPL1/JPL2                               | GLAN1/GLAN2 Enable/D                                | Disable                    | Pins 1-2 (Enabled)  |
| JPME2                                   | ME (Manufacture) Mode                               | Select                     | Pins 1-2 (Normal)   |
| JPUSB1                                  | USB 1/2 Wake-up Enable                              | е                          | Pins 1-2 (Enabled)  |
| JWD1                                    | Watch Dog   |                            | Pins 1-2 (Reset)  |
| J21                                     | LAN Controller EEPROM                               |                            | Open (Disabled)   |
| Connectors                              | Description   | Connectors                 |   |
| Audio FP                                | Audio connector for front                           | access                     |   |
| HD Audio                                | 5.1 HD (6-channel High-D                            |                            | dio connector   |
| BT1                                     | · · · · · ·   | ,                          |   |
| COM1                                    | Onboard CMOS battery ( Serial port header           | oce onapier 3 101 OS       | ou bullety bioposal)  |
|   | PCI-E 3.0 x 8 in 16 slot                            |                            |   |
| CPU1 Slot1                              |   | hio alot io ovallabla ···· | on CDI 12 is installed )  |
| CPU2 Slot2                              | PCI-E 3.0 x 4 in 8 slot (The PCI-E 3.0 x 16 slots   | ino Siul is available Wi   | en of Uz is installed.)   |
| CPU1Slot3/Slot5<br>PCH Slot6            |   | on the note heless for     | Thunderbolt AOC support.)   |
|   |   |                            | Triunderboit ACC support.)  |
| FAN1-6, FANA                            | CPU/System fan headers                              |                            |   |
| J24                                     | ATX 24-pin power connec                             |                            |   |
| JD1                                     | Speaker/Power LED indic                             |                            |   |
| JF1                                     | Front control panel heads                           | er                         |   |
| JL1                                     | Chassis intrusion header                            |                            |   |
| JPI2C1                                  | Power supply SMBbus I <sup>2</sup>                  | <sup>2</sup> C header      |   |
| JPWR1/JPWR2                             | 12V 8-Pin Power Connec                              | ctors                      |   |
| JSD1/JSD2                               | SATA DOM (Device_On_                                | Module) power Conne        | ection headers 1/2  |
| JSPDIF_In                               | SPDIF_(Sony/Philips Dig                             | gital Interface)_In/Out    | header  |
| JSPDIF_Out                              | SPDIF_(Sony/Philips Dig                             | gital Interface)_Out he    | ader  |
| JSTBY1                                  | Standby power header                                |                            |   |
| JTBT1                                   | GPIO (General-Purpose I<br>for Thunderbolt AOC supp | ,                          | erbolt add-on card (See the note on page 1-5                        |
| JTPM1                                   | TPM (Trusted Platform M                             | lodule)/Port 80 header     |   |
| LAN1/LAN2                               | Gigabit Ethernet ports 1/2                          | 2                          |   |
| I-SATA0-5                               | Serial_Link ATA (SATA 3<br>Supermicro SuperDOMs     | ,                          | supported by Intel PCH (I-SATA4/5 support with power pins built-in) |
| S-SATA 0-3                              | Serial_Link ATA (SATA 3.0                           | 0) connections 0-3 su      | pported by Intel SCU  |
| SP1                                     | Onboard buzzer (internal                            | speaker)                   |   |
| I-SGPIO 1/2,<br>S-SGPIO                 | Serial-Link General_Purp<br>SATA4/5, S-GPIO: S-SAT  |                            | ders (I-SGPIO 1: I-SATA0-3, I-SGPIO 2: I-                           |
| USB 3/4 (3.0)                           | Rear USB 3.0 ports 3/4 o                            | on the IO backpanel        |   |
| USB 1/2 (2.0)                           | Front USB 2.0 ports 1/2 fo                          | or front access            |   |
| USB 5/6 (3.0)                           | Rear USB 3.0 ports 5/6 o                            | n the IO backpanel         |   |
| USB 7/8 (3.0)                           | Front-accessible USB 3.0                            | ) connections 7/8          |   |
| USB 0 (2.0)                             | Type A USB 2.0 USB con                              | nection header             |   |
| LED                                     |   | ED Indicators              |   |
| LED                                     | Description   | State                      |   |
| LE6                                     | Power Good LED                                      |                            | rd power VRMs Normal  |
| LEDPWR                                  | Power LED   | Solid On: Power            | On, Blinking: Suspend to RAM  |

## **CPU Support**

Dual Intel® E5-2600v3/v4 Series Processors (Socket R3-LGA 2011); each processor supports dual full-width Intel QuickPath Interconnect (QPI) links (of up to 9.6 GT/s one direction per QPI)

## **Memory Support**

This motherboard supports up to 1024 GB of Load Reduced (LRDIMM) and up to 256 GB of Registered (RDIMM) DDR4 (288-pin) ECC 2400/2133/1866/1600 MHz memory modules in 8 slots. Memory speed support is dependent on the CPUs installed in the motherboard. For the latest memory updates, please refer to our website at http://www.supermicro.com/products/motherboard.

Populating RDIMM/LRDIMM DDR4 Memory Modules for the E5-2600v3based Motherboard

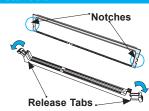
|                            | Ranks Per                 | DIMM C |       | Speed (MT/s);<br>Voltage (V);<br>Slot Per Channel<br>(SPC) and DIMM Per<br>Channel (DPC) |
|----------------------------|---------------------------|--------|-------|--|
| Туре                       | DIMM and<br>Data<br>Width | (G     | В)    | 1 Slot Per Channel   |
|                            |                           |        |       | 1DPC   |
|                            |                           | 4Gb    | 8Gb   | 1.2V   |
| RDIMM                      | SRx4                      | 8GB    | 16GB  | 2133   |
| RDIMM                      | SRx8                      | 4GB    | 8GB   | 2133   |
| RDIMM                      | DRx8                      | 8GB    | 16GB  | 2133   |
| RDIMM                      | DRx4                      | 16GB   | 32GB  | 2133   |
| LRDIMM                     | QRx4                      | 32GB   | 64GB  | 2133   |
| LRDIMM<br>3DS <sup>†</sup> | 8Rx4                      | 64GB   | 128GB | 2133   |

Populating RDIMM/LRDIMM DDR4 Memory Modules for the E5-2600v4based Motherboard

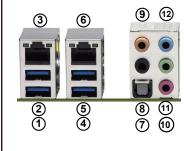
|               | DIMM and | DIMM Capacity |       | Speed (MT/s);<br>Voltage (V);<br>Slot Per Channel<br>(SPC) and DIMM Per<br>Channel (DPC) |
|---------------|----------|---------------|-------|--|
| Туре          |          | (G            | В)    | 1 Slot Per Channel   |
|               |          |               |       | 1DPC   |
|               |          | 4Gb           | 8Gb   | 1.2V   |
| RDIMM         | SRx4     | 8GB           | 16GB  | 2400   |
| RDIMM         | SRx8     | 4GB           | 8GB   | 2400   |
| RDIMM         | DRx8     | 8GB           | 16GB  | 2400   |
| RDIMM         | DRx4     | 16GB          | 32GB  | 2400   |
| LRDIMM        | QRx4     | 32GB          | 64GB  | 2400   |
| LRDIMM<br>3DS | 8Rx4     | 64GB          | 128GB | 2400   |

#### **DIMM Memory Installation**





### **Back Panel I/O Connectors**



| 1.  | Rear USB 3.0 Port 3 |
|-----|---------------------|
| 2.  | Rear USB 3.0 Port 4 |
| 3.  | Gigabit LAN Port 1  |
| 4.  | Rear USB 3.0 Port 5 |
| 5.  | Rear USB 3.0 Port 6 |
| 6.  | Gigabit LAN Port 2  |
| 7.  | SPDIF_Out           |
| 8.  | Surround_Out        |
| 9.  | CEN/LFE_Out         |
| 10. | Mic_In              |
| 11. | Line-Out            |
| 12. | Line_In             |

Note: Refer to Chapter 1 of the user manual for detailed information on jumpers, connectors, and LED

Note: Refer to Chapter 2 of the user manual for detailed information on memory support and CPU/ motherboard installation instructions.

MNL-1701-QRG-10c