SUPERMICRO®

X10DRH-C/CT/i/iT

Quick Reference Guide Rev. 1.0a

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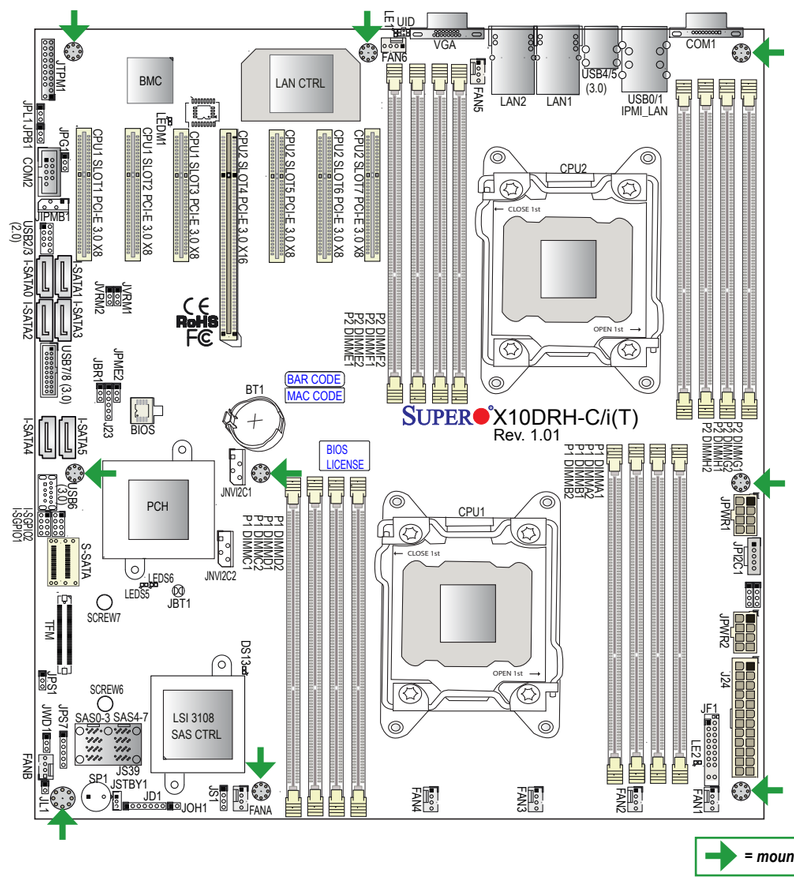
For your system to work properly, please download appropriate drivers/images/user's manual from the links below:
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: ftp://ftp.supermicro.com
- Safety: http://www.supermicro.com/about/policies/safety_information.cfm

Package Contents
- One (1) Supermicro Motherboard
- X10DRH-i/iT: Six (6) SATA Cables (CBL-0044L)
- X10DRH-C/CT: Two (2) SATA Cables (CBL-0044L) and Two (2) SAS Cables (CBL-SAST-0532)
- One (1) I/O Shield (MCP-260-00042-ON)
- One (1) Quick Reference Guide (MNL-1628-QRG)

Motherboard Layout and Features



Jumpers and Connectors

Jumpers

Jumper	Description	Default Setting
JBT1	Clear CMOS	Open: Normal, Short: Clear CMOS
JPB1	BMC Enable	Pins 1-2 (Enabled)
JPG1	VGA Enable	Pins 1-2 (Enabled)
JPL1	GLAN1/GLAN2 Enable (X10DRH-C/i) (10G) TLAN1/TLAN2 Enable (X10DRH-CT/iT)	Pins 1-2 (Enabled)
JPME2	Manufacture (ME) Mode Select	Pins 1-2 (Normal)
JVRM1	VRM SMB Clock (to BMC or PCH)	Pins 1-2 (BMC, Normal)
JVRM1	VRM SMB Data (to BMC or PCH)	Pins 1-2 (BMC, Normal)
JWD1	Watch Dog Timer Enable	Pins 1-2 (Reset)
JPS1	SAS Enable (X10DRH-C/CT only)	Pins 1-2 (Enabled)

Connectors

Connectors	Description
BT1 (Battery)	Onboard CMOS battery (See Chpt. 3 for Used Battery Disposal)
COM1/COM2	Back panel COM Port1/Front accessible COM2 header
FAN1-6,A, B	CPU/system fan headers
J24	24-pin ATX main power connector (See Warning on Pg. 1-6.)
JD1	Speaker/Power LED header
JF1	Front panel control header
JIPMB1	4-pin external BMC I²C header (for an IPMI card)
JL1	Chassis intrusion header
JPI²C1	Power supply SMBbus I²C header
JPWR1/JPWR2	12V 8-pin power connectors (See Warning on Pg. 1-6.)
JSTBY1	Standby power connector
JTPM1	TPM (Trusted Platform Module)/Port 80 header
LAN1/LAN2	G-bit Ethernet (GLAN) ports 1/2 (X10DRH-C/i) 10G-bit Ethernet (TLAN) ports 1/2 (X10DRH-CT/iT)
IPMI_LAN	IPMI LAN support by the ASpeed controller
I-SATA 0-5	SATA 3.0 connectors supported by Intel PCH (I-SATA 0-5), (I-SATA4/I-SATA5: can be used as Supermicro SuperDOM (Disk-on-Module) with built-in power connectors)
S-SATA	SATA 3.0 vertical connector w/4-SATA connections supported by Intel SCU
SAS(0-3,4-7(JS39)	SAS 3.0 connections (0-3,4-7) supported by the LSI 3108 (for X10DRH-C/CT)
Slot1/Slot2/Slot3	PCI-Express 3.0 x8 slot from CPU1
Slot4	PCI-Express 3.0 x16 slot from CPU2
Slot5/Slot6/Slot7	PCI-Express 3.0 x8 slot from CPU2
(I-)SGPIO1/2	Serial Link General Purpose I/O headers 1/2 for SATA ports (I-SGPIO1 for I-SATA0-3, I-SGPIO2 for I-SATA4/5)
SP1	Internal speaker/buzzer
TFM Header	TFM header used for onboard 3018 CacheVault (Optional) Used for CacheVault (Optional for X10DRH-C/CT)
UID	UID (Unit Identification) switch
(BP) USB 0/1 (2.0)	Back panel USB 2.0 ports 0/1
(FP) USB 2/3 (2.0)	Front accessible USB 2.0 connections (USB 2/3) header
(BP) USB 4/5 (3.0)	Back panel USB 3.0 ports 4/5
(FP) USB 7/8 (3.0)	Front accessible USB 3.0 connections (USB 7/8) header
(FP) USB 6 (3.0)	Front accessible Type A 3.0 connector (USB6)
VGA	Back panel VGA port

Note: Refer to Chapter 1 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

LED Indicators

LED	Description	State	Status
DS13 (X10DRH-C/CT)	SAS Heartbeat LED	Green: Blinking	SAS Normal
LE1	Rear UID LED	Blue: On	Unit Identified
LE2	Onboard PWR LED	On	Power On
LEDM1	BMC Heartbeat LED	Green: Blinking	BMC Normal
LEDS5 (X10DRH-C/CT)	SAS Activity LED	Green: Blinking	SAS Active
LEDS6 (X10DRH-C/CT)	SAS Fault LED	Red: On	SAS Error(s) Detected

CPU Support

Dual Intel® E5-2600 V3/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).

Note: *Both CPUs need to be installed for full access to the PCI-E slots, DIMM slots, and onboard controllers. Refer to page 1-10 in the user's manual to determine which slots or devices may be affected.*

Memory Support

The X10DRH-C/CT/i/iT motherboard supports up to 1024 GB of Load Reduced (LRDIMM) or 512 GB of Registered (RDIMM) DDR4 (288-pin) ECC 2400/2133/1866/1600/1333 MHz modules in 16 slots (2 DIMMs per channel). Memory speed support depends on the processors installed in the motherboard. For the latest memory updates, please refer to our website at http://supermicro.com/products/motherboard.

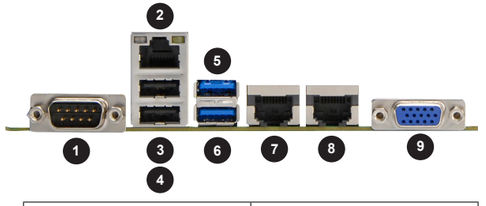
Memory support for E5-2600V3

Type	Ranks Per DIMM and Data Width	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); Slot Per Channel (SPC) and DIMM Per Channel (DPC)		
				1 Slot Per Channel	2 Slots Per Channel	
				1DPC	1DPC	2DPC
		4Gb	8Gb	1.2V	1.2V	1.2V
RDIMM	SRx4	8GB	16GB	2133	2133	1866
RDIMM	SRx8	4GB	8GB	2133	2133	1866
RDIMM	DRx8	8GB	16GB	2133	2133	1866
RDIMM	DRx4	16GB	32GB	2133	2133	1866
LRDIMM	QRx4	32GB	64GB	2133	2133	2133
LRDIMM 3DS	8Rx4	64GB	128GB	2133	2133	2133

Memory support for E5-2600V4

Type	Ranks Per DIMM and Data Width	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); Slot Per Channel (SPC) and DIMM Per Channel (DPC)		
				1 Slot Per Channel	2 Slots Per Channel	
				1DPC	1DPC	2DPC
		4Gb	8Gb	1.2V	1.2V	1.2V
RDIMM	SRx4	8GB	16GB	2400	2400	2133
RDIMM	SRx8	4GB	8GB	2400	2400	2133
RDIMM	DRx8	8GB	16GB	2400	2400	2133
RDIMM	DRx4	16GB	32GB	2400	2400	2133
LRDIMM	QRx4	32GB	64GB	2400	2400	2400
LRDIMM 3DS	8Rx4	64GB	128GB	2400	2400	2400

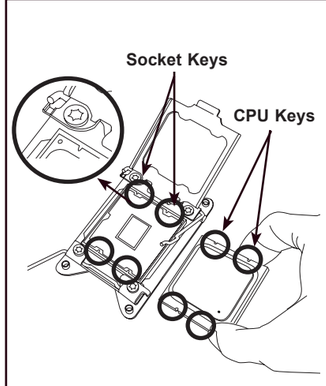
Back Panel I/O Connectors



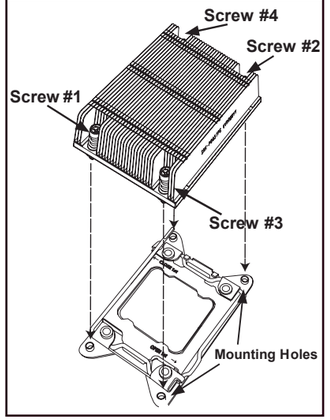
1. COM Port 1	6. Back Panel USB 3.0 Port 5
2. IPMI LAN	7. Gigabit LAN 1
3. Back Panel USB 2.0 Port 0	8. Gigabit LAN 2
4. Back Panel USB 2.0 Port 1	9. VGA Port
5. Back Panel USB 3.0 Port 4	

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

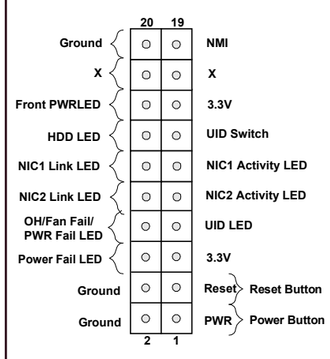
CPU Installation



Heatsink Installation



Front Panel Control (JF1)



Note: Graphics shown in this quick reference guide are for illustration only. Your components may or may not look exactly the same as drawings shown in this guide.

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