# MicroCloud

## 24/12/8 UP Server Nodes in 3U

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**SUPERMICR** 

New! Intel® Atom Processor C2750 Series / Xeon® E5-2600 v2 / E3-1200 v3 Product Families Support

High-Density, High-Performance · High-Efficiency, and Cost-Effective Easy-to-Service · Space Saving · Optimized for Cloud Computing and Web Hosting

## Hot-Pluggable sleds in 3U

P Nodes or

SYS-5038MA-H24TRF Up to 24x 2.5" SATA3 HDDs, or 48x 2.5" slim SDDs Intel<sup>®</sup> Atom<sup>™</sup> C2750

24 UP Nodes / 12 Hot-pluggable sleds in 3U (SYS-5038ML-H24TRF) Intel<sup>®</sup> Xeon<sup>®</sup> E3-1200 v3 Family Support

12 Hot-pluggable Nodes in 3U (SYS-5038ML-H12TRF/SYS-5037MC-H12TRF Intel®Xeon®E3-1200 v3/AMD Opteron 3000 Family Support



8 Hot-pluggable Nodes in 3U (SYS-5037-MC-H8TRF/SYS-5037MC-H86RF/SYS-5037MR-H8TRF) Intel® Xeon® E5-2600 v2/E3-1200 v3/E3-1200 vs Family Support

- High density with 24/12/8 UP nodes in 3U
- Excellent expansion capability with 1 PCI-E 3.0 x8 LP slot per node
- Up to 2x 3.5" hot-swap or 4x 2.5" fixed SATA3.0 (6Gbps) HDDs per node
- High efficiency Platinum Level (94%) 1+1 redundant power supplies
- IPMI 2.0 remote management plus KVM with dedicated LAN per node
- Intel<sup>®</sup> processor Atom<sup>™</sup> C2750, Xeon<sup>®</sup> E5-2600 v2 and E3-1200 v2 / 1200 v3 families, AMD Opteron<sup>™</sup> 3000 series
- Up to 130W high-performance CPU support available



Prover the C



May 2014



MODEL	SYS-5038MA-H24TRF (Available as a complete system*)	
Processor Support	24 sets of single Intel® Atom processor C2750 (20W, 8-Core)	
Key Applications	<ul> <li>CDN</li> <li>Hosting &amp; Application delivery</li> <li>Web Cache</li> <li>Web Server</li> <li>Memcache</li> </ul>	
Outstanding Features	<ul> <li>24x Avoton Nodes in 12 hot-plug sleds, 2 nodes per sled</li> <li>1620W Redundant Platinum Level High-Efficiency power supplies</li> <li>2 Gigabit Ethernet Ports per Node</li> <li>32GB of DDR3 Unb. VLP ECC Memory per Node</li> <li>Best Performance per Rack</li> <li>High-density, Enterprise Class Performance, Cost-effective</li> <li>2x 2.5" SATA 3.0 (6Gbps) HDDs per node</li> </ul>	
Serverboard	SUPER®® A1SA2-2750F	
Chipset	Avoton SOC	
System Memory (Max.)*	24 sets of up to 32GB Unbuffered ECC, VLP DDR3-1600MHz in 4 DIMM Sockets	
Expansion Slots	N/A	
Onboard Storage Controller	24 sets of Intel® Avoton for SATA3 (6Gbps) ports; RAID 0,1	
Connectivity	24 sets of Dual port GbE	
VGA/Audio	24 sets of Aspeed AST 2400 Graphics	
Management	12 sets of IPMI 2.0 + KVM with dedicated LAN (1 set shared between 2 nodes)	
Drive Bays	24 sets of 2 x 2.5" SATA 3.0 HDDs fixed per node	
Power Supply	1620W Redundant Platinum Level High-Efficiency power supplies	
Cooling System	4x 9cm Heavy duty fans with optimal cooling zone	
Form Factor	3U Rackmount 444.5 x 132.5 x 749.3mm (17.5" x 5.21" x 29.5")	

\* Integrated with memory and HDD as a standard configuration. Please contact your Supermicro sales representative for more information

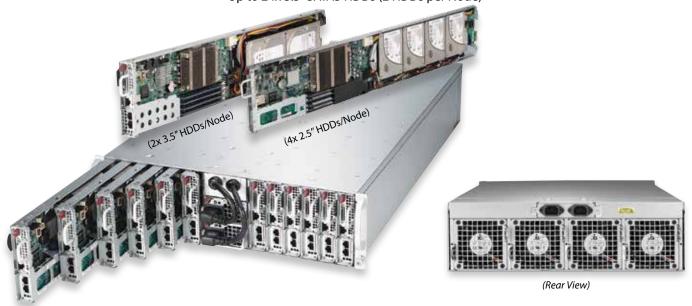


MODEL	SYS-5038ML-H24TRF (Available as a complete system*)
Processor Support	24 sets of single Intel® Xeon® processor E3-1200 v3 product family; Intel® 4th Generation Core™ i3 series Intel® Celeron® Intel® Pentium®, Socket H3 (LGA 1150) up to 80W CPU
Key Applications	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>
Outstanding Features	<ul> <li>24x UP Nodes in 12 hot-plug sled, 2 nodes per sled</li> <li>2000W Redundant Platinum Level Digital high-efficiency power supplies</li> <li>2x 2.5" SATA3 (6Gbps) HDDs or 4x 2.5" slim SDD w/ optional kit per sled</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>IPMI 2.0 + KVM with dedicated LAN</li> <li>Multi-node UP server</li> <li>UID LED</li> </ul>
Serverboard	SUPER®°X10SLE-DF
Chipset	Intel® C224 chipset
System Memory (Max.)*	24 sets of up to 32GB Unbuffered ECC, VLP DDR3-1600 MHz in 4 DIMM sockets
Expansion Slots	N/A
Onboard Storage Controller	24 sets of Intel® C224 controller for 4 SATA3 (6Gbps) ports; RAID 0,1
Connectivity	24 sets of Dual LAN Intel® i350 GbE LAN controller
VGA/Audio	24 sets of Aspeed AST2400 graphics
Management	12 sets of IPMI 2.0 + KVM with dedicated LAN (1 set shared between 2 nodes); SuperDoctor®, Watch Dog, SPM
Drive Bays	24 sets of 1x 2.5" SATA3 fixed HDDs or 2x 2.5" slim SSD w/ optional kit
Power Supply	2000W Redundant Platinum Level Digital high-efficiency power supplies
Cooling System	4x 9cm Heavy duty fans with optimal cooling zone
Form Factor	3U Rackmount 444.5 x 132.5 x 791.2mm (17.5" x 5.21" x 31.15")

\* Integrated with CPU, memory and HDD as a standard configuration. Please contact your Supermicro sales representative for more information

## **12** Hot-pluggable Nodes in 3U (Front I/O) Intel<sup>®</sup> Xeon<sup>®</sup> Processor E3-1200 v3 Product Family Support

Up to 24x 3.5" SATA3 HDDs (2 HDDs per Node)



MODEL	SYS-5038ML-H12TRF	
Processor Support	12 sets of single Intel® Xeon® processor E3-1200 v3 product family; Intel® 4th Generation Core™ i3 series Intel® Celeron® Intel® Pentium®; Socket H3 (LGA 1150) up to 80W CPU	
Key Applications	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>	
Outstanding Features	<ul> <li>12x Hot-plug UP Nodes in 3U</li> <li>1620W Redundant Platinum Level high-efficiency power supplies</li> <li>4x 2.5" SATA / 2x 3.5 HDDs per node</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>IPMI 2.0 + KVM with dedicated LAN</li> <li>Multi-node UP server</li> <li>UID LED</li> </ul>	
Serverboard	SUPER®®X10SLE-F	
Chipset	Intel® C224 chipset	
System Memory (Max.)	12 sets of up to 32GB Unbuffered ECC, VLP DDR3-1600 MHz in 4 DIMM sockets	
Expansion slot	12 sets of Micro-LP slots (Micro-LP upgradeable)	
Onboard Storage Controller	12 sets of Intel® C224 controller for 4 SATA3 (6Gbps) ports; RAID 0,1	
Connectivity	12 sets of Dual LAN Intel® i350 GbE LAN controller	
VGA/Audio	12 sets of Aspeed AST2400 graphics	
Management	12 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor <sup>®</sup> III, Watch Dog, SPM	
Drive Bays	12 sets of 2x 3.5" SATA3 fixed HDDs or 4x 2.5" fixed SATA3 HDDs w/ optional kit	
Power Supply	1620W Redundant Platinum Level high-efficiency power supplies	
Cooling System	4x 9cm Heavy duty fans with optimal cooling zone	
Form Factor	3U Rackmount 444.5 x 132.5 x 749.3mm (17.5″ x 5.21″ x 29.5″)	

## **12** Hot-pluggable Nodes in 3U (Front I/O)

Up to 24x 3.5" SATA3 HDDs (2 HDDs per Node)



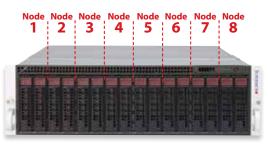
MODEL	SYS-5037MC-H12TRF	AS-3012MA-H12TRF
Processor Support	12 sets of single Intel <sup>®</sup> Xeon <sup>®</sup> processor E3-1200 v2 product family, Intel <sup>®</sup> 2nd & 3rd Gen. Core i3 & Intel <sup>®</sup> Pentium <sup>®</sup> family processors; socket H2 (LGA 1155), up to 69W CPU	12 sets of AMD Opteron™ 3000 series 8/4 core processors, up to 65W CPU
Key Applications	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>
Outstanding Features	<ul> <li>12x Hot-plug UP Nodes in 3U</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>69W CPU support</li> <li>Micro-LP card upgradeable</li> <li>Up to 4x 2.5" / 2x 3.5" HDD per node</li> <li>IPMI 2.0 with KVM over Dedicated LAN for each node</li> <li>1620W Redundant Platinum Level Power Supplies</li> </ul>	<ul> <li>High-density, Enterprise Performance, Cost-effective Multi-node UP server</li> <li>Up to 12x hot-pluggable node in 3U chassis</li> <li>MicroLP card upgradeable</li> <li>2x 3.5" or 4x 2.5" (optional) SATA drive bays per node</li> <li>RAID 0, 1, 10 (Optional with 4 x 2.5" drive installed)</li> <li>IPMI 2.0 with KVM over Dedicated LAN for each node</li> <li>1620W Redundant Platinum Level Power Supplies</li> </ul>
Serverboard	SUPER•*X9SCE-F	A+ H8SME-F
Chipset	Intel® C204 PCH chipset	AMD SR5650 / SP5100
System Memory (Max.)	12 sets of up to 32GB Unbuffered ECC, VLP DDR3-1600/1333 MHz in 4 DIMM sockets	12 sets of up 32GB DDR3 ECC VLP-UDIMM 1600/1333/1066 MHz in 4 DIMM Sockets
Expansion slot	12 sets of Micro-LP slots (Micro-LP upgradeable)	12 sets of Micro-LP slots
Onboard Storage Controller	12 sets of Intel <sup>®</sup> C204 for 2 SATA3 (6Gbps); RAID 0, 1	12 sets of AMD SP5100 for 4 SATA; RAID 0,1
Connectivity	12 sets of Dual LAN Intel® i350 GbE LAN controller	12 sets of Dual LAN Intel® i350 GbE LAN controller (w/ MicroLP card)
VGA/Audio	12 sets of Matrox <sup>®</sup> G200eW graphics	12 sets of Matrox <sup>®</sup> G200eW graphics
Management	12 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor <sup>®</sup> III, Watch Dog, SPM	12 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor <sup>®</sup> III, Watch Dog
Drive Bays	<b>12 sets</b> of 2x 3.5″ SATA3 or 4x 2.5″ SATA (2x SATA3 + 2x SATA2) HDDs with optional kit	12 sets of 2x 3.5" SATA2 or 4x 2.5" (optional) SATA drive bays (internal)
Power Supply	1620W Redundant Platinum Level high-efficiency power supplies	1620W Redundant Platinum Level high-efficiency power supplies
Cooling System	4x 9cm Heavy duty fans with optimal cooling zone	4x 9cm Heavy duty fans with optimal cooling zone
Form Factor	3U Rackmount 444.5 x 132.5 x 749.3mm (17.5" x 5.21" x 29.5")	3U Rackmount 444.5 x 132.5 x 749.3mm (17.5" x 5.21" x 29.5")

## 8-Node, Rear I/O

## 8 Hot-pluggable Nodes in 3U (Rear I/O) Intel® Xeon® Processor E5-2600 v2 / E3-1200 v3 Product Family Support

Up to 16x 3.5" SATA3 HDDs (2 HDDs per Node)





(Front View)

FORMU

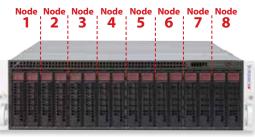
MODEL	SYS-5037MR-H8TRF	SYS-5038ML-H8TRF SYS-5038ML-H8TRF-OEM
Processor Support	8 sets of single Intel® Xeon® processor E5-2600 v2 product family, up to 130W CPU	8 sets of single Intel® Xeon® processor E3-1200 v3 product family; Intel® 4th Generation Core™ i3 series Intel® Celeron® Intel® Pentium®, Socket H3 (LGA 1150) up to 84W CPU
Key Applications	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>
Outstanding Features	<ul> <li>8x Hot-plug UP Nodes in 3U</li> <li>High-density, High-performance, Cost-effective</li> <li>Multi-node UP server</li> <li>130W CPU support</li> <li>Hot-swappable SATA HDD</li> <li>Expansion slot support</li> <li>Cable-less design</li> <li>Micro-LP card upgradeable</li> <li>IPMI 2.0 with KVM over Dedicated LAN for each node</li> <li>1620W Redundant Platinum Level Power Supplies</li> </ul>	<ul> <li>8x Hot-plug UP Nodes in 3U</li> <li>1 PCI-E x8 slot</li> <li>1620W Redundant Platinum Level high-efficiency power supplies</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>IPMI 2.0 + KVM with dedicated LAN</li> <li>Multi-node UP server</li> <li>Hot-swappable SAS/SATA3 (6gbps) HDDs</li> <li>UID LED</li> </ul>
Serverboard	SUPER® X9SRD-F	SUPER®X10SLD-F SUPER®X10SLE-HF (-OEM)
Chipset	Intel <sup>®</sup> C602J chipset	Intel <sup>®</sup> C224 chipset / C226 (-OEM)
System Memory (Max.)	8 sets of up to 128GB ECC Registered DDR3-1866/1600 MHz in 4 DIMM sockets	<mark>8 sets</mark> of up to <mark>32GB</mark> Unbuffered ECC, DDR3-1600 MHz in 4 DIMM sockets
Expansion slot	8 sets of PCI-E 3.0 x8 (low profile) and 8 sets of Micro-LP slots (Micro-LP upgradeable)	8 sets of PCI-E 3.0 x8 (low-profile) and 8 sets of Micro-LP slots (Micro-LP upgradeable)
Onboard Storage Controller	<mark>8 sets</mark> of Intel® C602J for 2 SATA3 (6Gbps); RAID 0, 1	8 sets of Intel® C224 controller for 2 SATA3 (6Gbps) ports; RAID 0,1; Selected low-profile RAID or HBA RAID card to support SAS HDD
Connectivity	8 sets of Dual LAN Intel® i350 GbE LAN controller	8 sets of Dual LAN Intel® i350 GbE LAN controller
VGA/Audio	8 sets of Matrox <sup>®</sup> G200eW graphics	8 sets of Aspeed AST2400 graphics
Management	8 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor® III, Watch Dog, SPM	8 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor® III, Watch Dog, SPM
Drive Bays	8 sets of 2 x 3.5" hot-swap SATA3 (6Gbps) drive bays	8 sets of 2x 3.5" hot-swap SAS/SATA3 (6Gbps) HDDs
Power Supply	1620W Redundant Platinum Level high-efficiency power supplies	1620W Redundant Platinum Level high-efficiency power supplies
Cooling System	4x 8cm Heavy duty fans with optimal cooling zone	4x 8cm Heavy duty fans with optimal cooling zone
Form Factor	3U Rackmount 438.4 x 132.5 x 589mm (17.26" x 5.21" x 23.2")	3U Rackmount 438.4 x 132.5 x 589mm (17.26″ x 5.21″ x 23.2″)
6		SUPERMICE MicroCloud Solutions - May 2014

## 8-Node, Rear I/O

## 8 Hot-pluggable Nodes in 3U (Rear I/O) Intel® Xeon® Processor E5-2600 v2 / E3-1200 v3 Product Family Support

Up to 16x 3.5" SATA3 HDDs (2 HDDs per Node)





(Front View)

MODEL	SYS-5037MC-H8TRF SYS-5037MC-H8TRF-OEM	SYS-5037MC-H86RF
Processor Support	8 sets of single Intel <sup>®</sup> Xeon <sup>®</sup> processor E3-1200 v2 product family, Intel <sup>®</sup> 2nd & 3rd Gen. Core i3 & Intel <sup>®</sup> Pentium <sup>®</sup> family processors; socket H2 (LGA 1155), up to 95W CPU	8 sets of single Intel <sup>®</sup> Xeon <sup>®</sup> processor E3-1200 v2 product family, Intel <sup>®</sup> 2nd & 3rd Gen. Core i3 & Intel <sup>®</sup> Pentium <sup>®</sup> family processors; socket H2 (LGA 1155), up to 95W CPU
Key Applications	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>	<ul> <li>Cloud Computing</li> <li>Web Cache, CDN, Video Streaming</li> <li>Web/Collocating Service</li> <li>Social networking/download</li> </ul>
Outstanding Features	<ul> <li>8x Hot-plug UP Nodes in 3U</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>Multi-node UP server</li> <li>95W CPU support</li> <li>Hot-swappable SATA HDD</li> <li>Expansion slot support</li> <li>Cable-less design</li> <li>IPMI 2.0 with KVM over Dedicated LAN for each node</li> <li>1620W Redundant Platinum Level Power Supplies</li> </ul>	<ul> <li>8x Hot-plug UP Nodes in 3U</li> <li>High-density, Enterprise Performance, Cost-effective</li> <li>Multi-node UP server</li> <li>95W CPU support</li> <li>Hot-swappable SAS/SATA HDD</li> <li>Expansion slot support</li> <li>Cable-less design</li> <li>IPMI 2.0 with KVM over Dedicated LAN for each node</li> <li>1620W Redundant Platinum Level Power Supplies</li> </ul>
Serverboard	SUPER®X9SCD-F SUPER®X9SCD+-F (-OEM)	SUPER®*X9SCD+-HF
Chipset	Intel® C204 PCH chipset	Intel® C204 PCH chipset
System Memory (Max.)	8 sets of up to 32GB Unbuffered ECC, DDR3 1600/1333 MHz in 4 DIMM sockets	8 sets of up to 32GB Unbuffered ECC, DDR3 1600/1333 MHz in 4 DIMM sockets
Expansion slot	8 sets of PCI-E 3.0 x8 (low profile) and 8 sets of Micro-LP slots	8 sets of PCI-E 3.0 x8 (low profile) and 8 sets of Micro-LP slots
Onboard Storage Controller	8 sets of Intel <sup>®</sup> C204 for 2 SATA3 (6Gbps); RAID 0,1	8 sets of 2 SATA/SAS HDD w/ selected RAID or HBA card
Connectivity	8 sets of Dual LAN Intel® 82580DB GbE LAN controller	8 sets of Dual LAN Intel® 82580DB GbE LAN controller
VGA/Audio	8 sets of Matrox <sup>®</sup> G200eW graphics	8 sets of Matrox <sup>®</sup> G200eW graphics
Management	8 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor® III, Watch Dog, SPM	8 sets of IPMI 2.0 + KVM with dedicated LAN, SuperDoctor® III, Watch Dog, SPM
Drive Bays	8 sets of 2x 3.5" hot-swap SATA 3(6Gbps) HDDs	8 sets of 2x 3.5" hot-swap SAS/SATA HDDs
Power Supply	1620W Redundant Platinum Level high-efficiency power supplies; 920W Redundant Platinum Level high-efficiency power supplies (-OEM)	1620W Redundant Platinum Level high-efficiency power supplies
Cooling System	4x 8cm Heavy duty fans with optimal cooling zone	4x 8cm Heavy duty fans with optimal cooling zone
Form Factor	3U Rackmount 438.4 x 132.5 x 589mm (17.26" x 5.21" x 23.2")	3U Rackmount 438.4 x 132.5 x 589mm (17.26" x 5.21" x 23.2")

## We Keep IT Green



### **Worldwide Headquarters:**

### Super Micro Computer, Inc. 980 Rock Ave. San Jose, CA 95131, USA Tel: +1-408-503-8000 Fax: +1-408-503-8008 E-mail: Marketing@Supermicro.com

### **Europe Subsidiary:**

Super Micro Computer, B.V. Het Sterrenbeeld 28, 5215 ML, 's-Hertogenbosch, The Netherlands Tel: +31-73-640-0390 Fax: +31-73-641-6525 E-mail: Marketing@Supermicro.nl

### Asia Subsidiary:

### Super Micro Computer, Inc. (Taiwan Office)

3F., No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 23511, Taiwan Tel: +886-2-8226-3990 Fax: +886-2-8226-3991 E-mail: Marketing@Supermicro.com.tw

### **Supermicro Science & Technology Park**

No.1899, Xingfeng Road, Bade City, Taoyuan County 334, Taiwan Tel: +886-2-8226-3990 Fax: +886-2-8226-3991 E-mail: Marketing@Supermicro.com.tw

### **China Subsidiary:**

Super Micro Computer, Inc. (Beijing Office) Suite 1208 JiaHua Building D Shangdi, Haidian District, Beijing China 100085 Tel: +86-10-62969165 E-mail: Marketing@Supermicro.com







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