

# ThinkSystem SR590 7X99A022EA

**Region**  
EET,MEA,RUCIS,WE

**Power Supply**  
2x 750W Platinum

**Machine Type**  
7X99

**Warranty**  
3-year

**TopSeller**  
No

**Ann Date (mm/yy)**  
11/17

**Processor**  
2x Xeon Gold 5118  
12C/2.3GHz/16.5MB/105W/DDR4-2400

**Memory**  
2x 32GB RDIMM DDR4-2666

**Storage Controller**  
1x 430-16i

**Disk Bays**  
16x2.5" HS (12 SATA/SAS, 4 AnyBay)

**Disks**  
Open

**M.2 Drives**  
None

**Networking (LOM/ML2/PCIe)**  
None

**Available PCIe Slots**  
5x PCIe x8, 1x PCIe x16

**Front VGA**  
Front VGA

**System Management**  
XClarity Enterprise

**Note:**

Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "\*\*\*" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries



This publication was developed for products and services offered in the United States and E.M.E.A countries. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area. Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. Lenovo provides this publication "as is" without warranty of any kind, either express or implied, including the implied warranties of merchantability or fitness for a particular purpose.



<http://psref.lenovo.com>

Visit psref website for the latest version of Product Specifications Reference.

© Lenovo, 2017. All rights reserved.

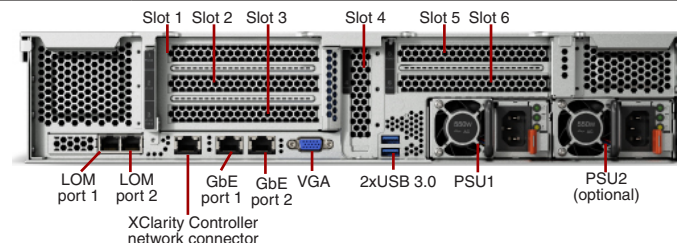


# ThinkSystem SR590 Platform Specifications

Product Specifications Reference (PSREF)

| Components                              | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|------------------|------------------|-------------|--------------|------------------|------------------|----------|---------|-------------|--------------|----------|------|----------|-----|------|------|----|---|--------|-----------|----------|-------------|-----|------|------|-----|---|--------|-----------|----------|-------------|-----|-----|------|----|---|-------------|--------|-----------|----------|------------------|-----|-----|--------------|-----|---|---------|-----------|----------|------------------|-----|-----|--------------|-----|---|--------|-----------|----------|---|-----|------|------|---|---|---------|-----------|----------|---|-----|------|------|---|---|--------|-----------|----------|---|-----|------|------|---|---|---------|-----------|----------|---|-----|------|------|---|---|--------|-----------|----------|------------------|-----|-----|--------------|-----|---|
| Form factor                             | 2U rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Dimensions                              | Height: 86.5 mm (3.4 in). Width: 482 mm (19.0 in) with rack latches. Depth: 763.7 mm (30.1 in)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Weight                                  | Maximum configuration: 61.7 lb (28 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Processor                               | Up to two 150W Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 26 cores at 2.0GHz, up to 3.6GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Chipset                                 | Intel C622 Platform Controller Hub                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Memory                                  | Up to 16 DIMM sockets. Each processor supports up to 8 DIMM sockets with 6 channels. DDR4-2666. RDIMMs and LRDIMMs are supported, but memory types cannot be intermixed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Memory capacity                         | With RDIMMs: Up to 512GB with 16 x 32 GB RDIMMs and two processors<br>With LRDIMMs: Up to 1TB with 16 x 64 GB LRDIMMs and two processors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Memory protection                       | ECC, memory mirroring, and memory sparing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Storage controllers                     | Supports the following RAID/HBA adapters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         | <table><tr><th></th><th>RAID adapter</th><th>Interface</th><th>Drive type</th><th>RAID levels</th><th>JBOD</th><th>Cache</th><th>Cache protection</th><th>FastPath</th><th>Max qty</th></tr><tr><td rowspan="3">For SS bays</td><td>Onboard SATA</td><td>6Gb SATA</td><td>SATA</td><td>0/1/10/5</td><td>Yes</td><td>None</td><td>None</td><td>No</td><td>-</td></tr><tr><td>530-8i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>0/1/10/5/50</td><td>Yes</td><td>None</td><td>None</td><td>Yes</td><td>2</td></tr><tr><td>730-8i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>0/1/10/5/50</td><td>Yes</td><td>1GB</td><td>None</td><td>No</td><td>2</td></tr><tr><td rowspan="7">For HS bays</td><td>930-8i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>0/1/10/5/50/6/60</td><td>Yes</td><td>2GB</td><td>Flash backup</td><td>Yes</td><td>2</td></tr><tr><td>930-16i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>0/1/10/5/50/6/60</td><td>Yes</td><td>4GB</td><td>Flash backup</td><td>Yes</td><td>1</td></tr><tr><td>430-8i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>-</td><td>Yes</td><td>None</td><td>None</td><td>-</td><td>2</td></tr><tr><td>430-16i</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>-</td><td>Yes</td><td>None</td><td>None</td><td>-</td><td>1</td></tr><tr><td>430-8e</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>-</td><td>Yes</td><td>None</td><td>None</td><td>-</td><td>5</td></tr><tr><td>430-16e</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>-</td><td>Yes</td><td>None</td><td>None</td><td>-</td><td>5</td></tr><tr><td>930-8e</td><td>12Gbs SAS</td><td>SATA/SAS</td><td>0/1/10/5/50/6/60</td><td>Yes</td><td>4GB</td><td>Flash backup</td><td>Yes</td><td>3</td></tr></table> |                              | RAID adapter                  | Interface        | Drive type       | RAID levels | JBOD         | Cache            | Cache protection | FastPath | Max qty | For SS bays | Onboard SATA | 6Gb SATA | SATA | 0/1/10/5 | Yes | None | None | No | - | 530-8i | 12Gbs SAS | SATA/SAS | 0/1/10/5/50 | Yes | None | None | Yes | 2 | 730-8i | 12Gbs SAS | SATA/SAS | 0/1/10/5/50 | Yes | 1GB | None | No | 2 | For HS bays | 930-8i | 12Gbs SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes | 2GB | Flash backup | Yes | 2 | 930-16i | 12Gbs SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes | 4GB | Flash backup | Yes | 1 | 430-8i | 12Gbs SAS | SATA/SAS | - | Yes | None | None | - | 2 | 430-16i | 12Gbs SAS | SATA/SAS | - | Yes | None | None | - | 1 | 430-8e | 12Gbs SAS | SATA/SAS | - | Yes | None | None | - | 5 | 430-16e | 12Gbs SAS | SATA/SAS | - | Yes | None | None | - | 5 | 930-8e | 12Gbs SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes | 4GB | Flash backup | Yes | 3 |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | RAID adapter                 | Interface                     | Drive type       | RAID levels      | JBOD        | Cache        | Cache protection | FastPath         | Max qty  |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         | For SS bays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Onboard SATA                 | 6Gb SATA                      | SATA             | 0/1/10/5         | Yes         | None         | None             | No               | -        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 530-8i                       | 12Gbs SAS                     | SATA/SAS         | 0/1/10/5/50      | Yes         | None         | None             | Yes              | 2        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 730-8i                       | 12Gbs SAS                     | SATA/SAS         | 0/1/10/5/50      | Yes         | 1GB          | None             | No               | 2        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         | For HS bays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 930-8i                       | 12Gbs SAS                     | SATA/SAS         | 0/1/10/5/50/6/60 | Yes         | 2GB          | Flash backup     | Yes              | 2        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 930-16i                      | 12Gbs SAS                     | SATA/SAS         | 0/1/10/5/50/6/60 | Yes         | 4GB          | Flash backup     | Yes              | 1        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 430-8i                       | 12Gbs SAS                     | SATA/SAS         | -                | Yes         | None         | None             | -                | 2        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 430-16i                      | 12Gbs SAS                     | SATA/SAS         | -                | Yes         | None         | None             | -                | 1        |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| 430-8e                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12Gbs SAS                    | SATA/SAS                      | -                | Yes              | None        | None         | -                | 5                |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| 430-16e                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12Gbs SAS                    | SATA/SAS                      | -                | Yes              | None        | None         | -                | 5                |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| 930-8e                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12Gbs SAS                    | SATA/SAS                      | 0/1/10/5/50/6/60 | Yes              | 4GB         | Flash backup | Yes              | 3                |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Note: 730-8i is available in China only |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Disk drive bays                         | Supports 3.5" Simple-swap bay up to 8, or 3.5" HS bay up to 12, or 2.5" HS bay up to 12. On 12x 3.5", 8x 2.5", or 16x 2.5" bay models, 4 bays can be upgrade to AnyBay. Optional 2 rear 3.5" HS bays are supported on 12 x 3.5" model, takes place in riser card 1 location.<br>Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Internal storage                        | For 3.5" SS bay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.5" HDD, SATA6Gbs, 7.2K     | 1TB/2TB/4TB/6TB/8TB           |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.5" HDD, SATA6Gbs, 7.2K     | 1TB/2TB/4TB/6TB/8TB/10TB      |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         | For 3.5" bay<br>(3.5" disks or 2.5" disks with 3.5" tray)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3.5" HDD, SAS12Gbs, 7.2K     | 1TB/2TB/4TB/6TB/10TB          |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.5" HDD, SAS12Gbs, 15K      | 300GB/600GB/900GB             |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" SSD, SATA6Gbs           | 240GB/480GB                   |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" NVMe SSD, AnyBay        | 960GB/1.92TB/3.84TB           |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         | For 2.5" bay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2.5" HDD, SATA6Gbs, 7.2K     | 1TB/2TB                       |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" HDD, SAS12Gbs, 7.2K     | 1TB/2TB                       |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" HDD, SAS12Gbs, 10K      | 300GB/600GB/900GB/1.2TB/1.8TB |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" HDD, SAS12Gbs, 10K, SED | 300GB/600GB                   |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" HDD, SAS12Gbs, 15K      | 300GB/600GB/900GB             |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" SSD, SAS12Gbs           | 400GB/800GB/3.84TB            |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" SSD, SATA6Gbs           | 240GB/480GB                   |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5" NVMe SSD, AnyBay        | 960GB/1.6TB/1.92TB/3.84TB     |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| M.2 boot drive                          | M.2 SATA SSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 32GB/128GB                   |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Optical                                 | No internal optical bay. Using USB DVD±RW optical drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Network interfaces                      | Integrated one dedicated management port plus two GbE ports. One LOM slot for customized LOM with two RJ-45 or SFP+ ports, up to 10GbE. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot.<br>Up to two ports supports Wake-on-LAN and NC-SI (see right)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Security features                       | Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Operating systems supported             | Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware ESXi 6.5/6.0 U3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Systems management                      | XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials. Light Path Diagnostics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| GPU support                             | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |
| Base warranty                           | MT 7X98: 1-year limited onsite service with 9x5/NBD<br>MT 7X99: 3-year limited onsite service with 9x5/NBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |                               |                  |                  |             |              |                  |                  |          |         |             |              |          |      |          |     |      |      |    |   |        |           |          |             |     |      |      |     |   |        |           |          |             |     |     |      |    |   |             |        |           |          |                  |     |     |              |     |   |         |           |          |                  |     |     |              |     |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |   |     |      |      |   |   |         |           |          |   |     |      |      |   |   |        |           |          |                  |     |     |              |     |   |

| Components                                        | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------|--------------------------------------------|--------------------------------|----------------------|--------------------------------------|--------------------------------------|------------------------------------|---------------------------------------------------|--------|
| Power supply                                      | Up to two redundant hot-swap 550W and 750W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Video                                             | Integrated Matrox G200 in XClarity Controller                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Cooling                                           | Three fans (2+1) for single processor model, four fans (3+1) for dual processor model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Front ports                                       | One XClarity Controller USB, one USB 3.0, one optional VGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Rear ports                                        | One VGA, two USB 3.0, two ethernet (RJ-45), one XClarity Controller connector. Optional COM port                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Environmental specification                       | <p>Supports ASHRAE A4 with limitations.</p> <table border="1"> <tbody> <tr> <td>Temperature - operating</td><td>A4: 5°C to 45°C (41°F to 113°F)<br/>A3: 5°C to 40°C (41°F to 104°F)<br/>A2: 10°C to 35°C (50°F to 95°F)</td></tr> <tr> <td>Temperature - non operating (no package)</td><td>-10°C to 60°C (14°F to 140°F)</td></tr> <tr> <td>Temperature - non operating (with package)</td><td>-40°C to 70°C (-40°F to 158°F)</td></tr> <tr> <td>Altitude - operating</td><td>(Unpressurized): 0-10000ft (0-3048m)</td></tr> <tr> <td>Humidity - operating, non-condensing</td><td>A4: 8%-90%. A3: 8%-85%. A2: 8%-80%</td></tr> <tr> <td>Humidity - storage (with package), non-condensing</td><td>8%-90%</td></tr> </tbody> </table> <p>Models should meet the following requirements to support A3 and A4:</p> <ul style="list-style-type: none"> <li>• Redundant power supplies required</li> <li>• No system fan fails</li> <li>• No NVMe drive</li> <li>• No rear two HS bays</li> <li>• Processor TDP is less than or equal to 140 watts, and no Intel Xeon 6140 or 6152 processor is installed</li> <li>• On 12x 3.5" models, no M.2 drives</li> </ul> | Temperature - operating | A4: 5°C to 45°C (41°F to 113°F)<br>A3: 5°C to 40°C (41°F to 104°F)<br>A2: 10°C to 35°C (50°F to 95°F) | Temperature - non operating (no package) | -10°C to 60°C (14°F to 140°F) | Temperature - non operating (with package) | -40°C to 70°C (-40°F to 158°F) | Altitude - operating | (Unpressurized): 0-10000ft (0-3048m) | Humidity - operating, non-condensing | A4: 8%-90%. A3: 8%-85%. A2: 8%-80% | Humidity - storage (with package), non-condensing | 8%-90% |
| Temperature - operating                           | A4: 5°C to 45°C (41°F to 113°F)<br>A3: 5°C to 40°C (41°F to 104°F)<br>A2: 10°C to 35°C (50°F to 95°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Temperature - non operating (no package)          | -10°C to 60°C (14°F to 140°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Temperature - non operating (with package)        | -40°C to 70°C (-40°F to 158°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Altitude - operating                              | (Unpressurized): 0-10000ft (0-3048m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Humidity - operating, non-condensing              | A4: 8%-90%. A3: 8%-85%. A2: 8%-80%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Humidity - storage (with package), non-condensing | 8%-90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |
| Environmental certification                       | Energy Star Server 2.1 certified. More environmental information please see: <a href="http://www.lenovo.com/social_responsibility/us/en/environment/">www.lenovo.com/social_responsibility/us/en/environment/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                                                                                                       |                                          |                               |                                            |                                |                      |                                      |                                      |                                    |                                                   |        |



Note: GbE port 1 and LOM port 1 support Wake-on-LAN and NC-SI. Riser cards, expansion cards, and LOM adapters are optional.

## Expansion slots

|                         |                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Slot 1-3 (riser card 1) | Supports one of the following for riser card 1:<br>Option 1: PCIe 3.0 x8/x8/x8 (slot 1-3). Full height, half length.<br>Option 2: PCIe 3.0 x16/x8 (slot 1 and 3). Full height, half length<br>Option 3: PCIe 3.0 x8/x8/x8 ML2 (slot 1-3). Full height, half length<br>Option 4: Two rear 3.5" disk bays, 12 x 3.5" models only |
| Slot 4 (onboard)        | PCIe 3.0 x8, low profile                                                                                                                                                                                                                                                                                                       |
| Slot 5 (riser card 2)   | PCIe 3.0 x16, full height, half length, requires 2nd CPU                                                                                                                                                                                                                                                                       |
| Slot 6 (riser card 2)   | PCIe 3.0 x8, full height, half length                                                                                                                                                                                                                                                                                          |

## System unique options

|            |                                                                 |
|------------|-----------------------------------------------------------------|
| 7XH7A06253 | ThinkSystem SR590/SR650 Rear HDD Kit                            |
| 4XH7A08778 | ThinkSystemSR550/SR650/SR650 x8/x8/ML2 PCIe FH Riser 1 Kit      |
| 4XH7A08779 | ThinkSystem SR550/SR590/SR650 x16/x8 PCIe FH Riser 1 Kit        |
| 4XH7A08777 | ThinkSystem SR550/SR590/SR650 x8/x8/x8 PCIe FH Riser 1 Kit      |
| 4XH7A08780 | ThinkSystemSR550/SR590/SR650 x16/x8(or x16) PCIe FH Riser 2 Kit |
| 7Z17A02578 | ThinkSystem SR550/SR590/SR650 EIA Latch w/ VGA Upgrade Kit      |
| 7Z17A02580 | ThinkSystem 2U Security Bezel                                   |
| 7Z17A02577 | ThinkSystem COM Port Upgrade Kit                                |
| 4XH7A08764 | ThinkSystem SR590 2.5" Anybay 8-Bay Backplane Kit               |
| 4XH7A08763 | ThinkSystem SR590 2.5" SATA/SAS 8-Bay Backplane Kit             |

# ThinkSystem SR590

