

# CyberServe Xeon SP2-1029GQ-TRT GPU Server

Ultra High-Density GPU Computing 1U Supercomputer, 4x Tesla or GTX-Titan GPU Cards - 20,000 CUDA Cores

Dear , If you would like any further information on the CyberServe Xeon SP2-1029GQ-TRT GPU Server, or if you would like to discuss your quote, don't hesitate to call your Broadberry account manager on 020 8997 6000 and quote reference "PDBC57735", or simply reply to this email.

### What Now?


1. Call 020 8997 6000
2. Ask For Bill Carless
3. Quote Reference PDBC57735

RRP: £15,514.44

Ex. VAT

# £12,411.55

Buy Now

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### further information

<https://www.broadberry.co.uk/xeon-scalable-processors-rackmount-servers/broadberry-1029gq-trt>

### System Summary

|  |   |
|--|---|
| Supermicro SuperServers                        | Supermicro SuperServer 1029GQ-TRT   SYS-1029GQ-TRT                            |
| Processor                                      | 2x Intel Xeon Bronze 3204 Processor - 6 Cores, 1.90GHz, 8.25MB Cache,(85Watt) |
| Memory   | 12x 8GB 2933MHz DDR4 ECC Registered DIMM Module                               |
| Hard Drive                                     |   |
| M.2 Internal Solid State Drives                | 2000GB Samsung 970 EVO NVME M.2 SSD   |
| Nvidia Tesla and AMD FirePro GPU Compute Cards | 4x NVIDIA RTX 3090 Blower Edition GPU Card, Gen4, 24GB GDDR6, 10496 Cores     |
| Total Price:                                   | £12,411.55  |
| Lease From:                                    | £262.50 per month over 5 years, or £405.61 over 3 years.                      |

### Bank Details:

Broadberry Data Systems Ltd, NATWEST West Ealing, 162 Uxbridge Road, London, W13 8JL  
Account No: 40248933, Branch Sort-Code: 60-23-13, IBAN: GB10 NWBK 6023 1340 2489 33



## Your Configured System Specifications

### Supermicro SuperServer 1029GQ-TRT | SYS-1029GQ-TRT

|  |  |                                 |                    |   |  |   |                     |
|--|--|---------------------------------|--------------------|---|--|---|---------------------|
| <b>BIOS</b>                                  |  | Supported RDIMM clock speeds    | 2133,2400,2666 MHz | Redundant power supply (RPS) support      |  | Y |                     |
| BIOS memory size                             |  | 32 Mbit                         |                    | <b>Processor</b>                          |  |   |                     |
| BIOS type                                    |  | AMI                             |                    | Built-in processor                        |  |   | N                   |
| <b>Design</b>                                |  |                                 |                    |   |  |   |                     |
| Fan diameter                                 |  | 4 cm                            |                    | Compatible processor series               |  |   | Intel® Xeon®        |
| Form factor                                  |  | 1U                              |                    | Motherboard chipset                       |  |   | Intel® C621         |
| LED indicators                               |  | HDD,Heating,Network,Power       |                    | Number of processors supported            |  |   | 2                   |
| Number of fans                               |  | 9 fan(s)                        |                    | Processor socket                          |  |   | LGA 3647            |
| On/off switch                                |  | Y                               |                    | System bus rate                           |  |   | 10.4 GT/s           |
| Product colour                               |  | Black                           |                    | <b>Storage</b>                            |  |   |                     |
| RoHS compliance                              |  | Y                               |                    | Hot-swap HDD bays                         |  |   | Y                   |
| <b>Expansion slots</b>                       |  |                                 |                    |   |  |   |                     |
| PCI Express slots version                    |  | 3.0                             |                    | Number of storage drives supported        |  |   | 4                   |
| PCI Express x16 slots                        |  | 5                               |                    | RAID levels                               |  |   | 0, 1, 5, 10         |
| PCI Express x8 slots                         |  | 1                               |                    | Storage drive sizes supported             |  |   | 2.5"                |
| <b>Graphics</b>                              |  | On-board graphics adapter model |                    | Supported storage drive interfaces        |  |   | Serial ATA III      |
|  |  | Aspeed AST2500                  |                    | <b>Technical details</b>                  |  |   |                     |
| <b>Memory</b>                                |  |                                 |                    |   |  |   |                     |
| ECC  |  | Y                               |                    | Number of 2.5" bays                       |  |   | 4                   |
| Maximum internal memory                      |  | 1500 GB                         |                    | <b>Weight &amp; dimensions</b>            |  |   |                     |
| Maximum RDIMM memory                         |  | 1500 GB                         |                    | Depth                                     |  |   | 894 mm              |
| Number of DIMM slots                         |  | 12                              |                    | Height                                    |  |   | 43 mm               |
| Supported memory types                       |  | DDR4-SDRAM                      |                    | Package weight                            |  |   | 21.8 kg             |
|  |  |                                 |                    | Weight                                    |  |   | 15.9 kg             |
|  |  |                                 |                    | Width                                     |  |   | 437 mm              |
| <b>Networking</b>                            |  |                                 |                    |   |  |   |                     |
| Copper ethernet cabling technology           |  | 10GBASE-T,100BASE-TX,1000BASE-T |                    | <b>Performance</b>                        |  |   |                     |
| Ethernet LAN                                 |  | Y                               |                    | PC health monitoring                      |  |   | CPU,FAN,Temperature |
| Ethernet LAN data rates                      |  | 100,1000,10000 Mbit/s           |                    | <b>Ports &amp; interfaces</b>             |  |   |                     |
| LAN controller                               |  | Intel® X550                     |                    | Ethernet LAN (RJ-45) ports                |  |   | 2                   |
| <b>Operational conditions</b>                |  |                                 |                    |   |  |   |                     |
| Operating relative humidity (H-H)            |  | 8 - 90%                         |                    | IPMI LAN (RJ-45) port                     |  |   | Y                   |
| Operating temperature (T-T)                  |  | 10 - 35 °C                      |                    | Number of SATA III connectors             |  |   | 4                   |
| Storage relative humidity (H-H)              |  | 5 - 95%                         |                    | USB 3.0 (3.1 Gen 1) Type-A ports quantity |  |   | 4                   |
| Storage temperature (T-T)                    |  | -40 - 60 °C                     |                    | VGA (D-Sub) ports quantity                |  |   | 1                   |
| <b>Power</b>                                 |  |                                 |                    |   |  |   |                     |
| Number of redundant power supplies installed |  | 2                               |                    | Power supply                              |  |   | 2000 W              |
| Power supply                                 |  | 2000 W                          |                    |   |  |   |                     |

### 2x Intel Xeon Bronze 3204 Processor - 6 Cores, 1.90GHz, 8.25MB Cache,(85Watt)

|                                     |  |                   |      |  |  |   |          |
|-------------------------------------|--|-------------------|------|--|--|---|----------|
| <b>Features</b>                     |  | Processor cores   | 6    | Intel Virtualization Technology (VT-x)                   |  | Y |          |
| Embedded options available          |  | Processor model   | 3204 | Intel Virtualization Technology for Directed I/O (VT-d)  |  |   | Y        |
| Execute Disable Bit                 |  | Processor threads | 6    | Intel VT-x with Extended Page Tables (EPT)               |  |   | Y        |
| Maximum number of PCI Express lanes |  | 48                |      | Intel® AES New Instructions (Intel® AES-NI)              |  |   | Y        |
| Scalability                         |  | 2S                |      | Intel® Hyper Threading Technology (Intel® HT Technology) |  |   | N        |
| <b>Memory</b>                       |  |                   |      |  |  |   |          |
| ECC supported by processor          |  | Y                 |      | Intel® Speed Shift Technology                            |  |   | Y        |
| <b>Operational conditions</b>       |  |                   |      |  |  |   |          |
| Tcase                               |  | 77 °C             |      | Intel® Turbo Boost Technology                            |  |   | N        |
| <b>Processor</b>                    |  |                   |      |  |  |   |          |
| Processor cache                     |  | 8.25 MB           |      | <b>Technical details</b>                                 |  |   |          |
|                                     |  |                   |      | Memory speed (max)                                       |  |   | 2133 MHz |
|                                     |  |                   |      | Number of UPI links                                      |  |   | 2        |

### 12x 8GB 2933MHz DDR4 ECC Registered DIMM Module

|                      |  |                                 |              |                                |  |          |              |
|----------------------|--|---------------------------------|--------------|--------------------------------|--|----------|--------------|
| <b>Features</b>      |  | Memory form factor              | 288-pin DIMM | Row cycle time                 |  | 45.75 ns |              |
| Buffered memory type |  | Memory voltage                  | 1.2 V        | <b>Operational conditions</b>  |  |          |              |
| CAS latency          |  | Module configuration            | 1024M x 72   | Operating temperature (T-T)    |  |          | 0 - 85 °C    |
| ECC                  |  | Programming power voltage (VPP) | 2.5 V        | Storage temperature (T-T)      |  |          | -55 - 100 °C |
| Internal memory      |  | Refresh row cycle time          | 350 ns       | <b>Weight &amp; dimensions</b> |  |          |              |
| Internal memory type |  | RoHS compliance                 | Y            | Height                         |  |          | 31.2 mm      |
| JEDEC standard       |  | Row active time                 | 32 ns        | Width                          |  |          | 133.3 mm     |
| Memory clock speed   |  | 2933 MHz                        |              |                                |  |          |              |

### 2000GB Samsung 970 EVO NVME M.2 SSD

#### Bank Details:

| Features                          |                 |  |
|-----------------------------------|-----------------|--|
| Controller type                   | Samsung Phoenix |  |
| DevSlp (device sleep) support     | Y               |  |
| Hardware encryption               | Y               |  |
| Interface                         | PCI Express 3.0 |  |
| Mean time between failures (MTBF) | 1500000 h       |  |
| Memory type                       | V-NAND MLC      |  |
| NVMe                              | Y               |  |
| NVMe version                      | 1.3             |  |
| PCI Express interface data lanes  | x4              |  |
| Random read (4KB)                 | 620000 IOPS     |  |
| Random write (4KB)                | 560000 IOPS     |  |

| Read speed                  | 3500 MB/s                            |
|-----------------------------|--------------------------------------|
| S.M.A.R.T. support          | Y                                    |
| Security algorithms         | 256-bit AES                          |
| SSD capacity                | 2000 GB                              |
| SSD form factor             | M.2                                  |
| TRIM support                | Y                                    |
| Write speed                 | 3300 MB/s                            |
| Operational conditions      |                                      |
| Operating temperature (T-T) | 0 - 70 °C                            |
| Packaging data              |                                      |
| Bundled software            | Magician Software for SSD management |

| Power                       |         |  |
|-----------------------------|---------|--|
| Operating voltage           | 3.3 V   |  |
| Power consumption (average) | 6 W     |  |
| Power consumption (idle)    | 0.03 W  |  |
| Power consumption (sleep)   | 0.005 W |  |
| Power consumption (standby) | 0.03 W  |  |
| Weight & dimensions         |         |  |
| Depth                       | 22.1 mm |  |
| Height                      | 2.38 mm |  |
| Weight                      | 8 g     |  |
| Width                       | 80.2 mm |  |

#### 4x NVIDIA RTX 3090 Blower Edition GPU Card, Gen4, 24GB GDDR6, 10496 Cores

| Design                           |           |  |
|----------------------------------|-----------|--|
| Cooling type                     | Active    |  |
| Number of fans                   | 1 fan(s)  |  |
| Product colour                   | Black     |  |
| Memory                           |           |  |
| Discrete graphics adapter memory | 24 GB     |  |
| Graphics adapter memory type     | GDDR6X    |  |
| Memory bandwidth (max)           | 936 GB/s  |  |
| Memory bus                       | 384 bit   |  |
| Memory clock speed               | 19500 MHz |  |
| Packaging data                   |           |  |
| Package type                     | Box       |  |
| User guide                       | Y         |  |
| Performance                      |           |  |
| DirectX version                  | 12.0      |  |

| Dual Link DVI                  | N                   |
|--------------------------------|---------------------|
| HDCP                           | Y                   |
| NVIDIA G-SYNC                  | Y                   |
| OpenGL version                 | 4.6                 |
| TV tuner integrated            | N                   |
| Ports & interfaces             |                     |
| DisplayPort version            | 1.4a                |
| DisplayPorts quantity          | 2                   |
| HDMI ports quantity            | 2                   |
| HDMI version                   | 2.1                 |
| Interface type                 | PCI Express x16 4.0 |
| Power                          |                     |
| Minimum system power supply    | 750 W               |
| Supplementary power connectors | 2x 8-pin            |

| Processor                              |                    |  |
|--|--------------------|--|
| CUDA                                   | Y                  |  |
| CUDA cores                             | 10496              |  |
| FireStream                             | N                  |  |
| Graphics processor                     | GeForce RTX 3090   |  |
| Graphics processor family              | NVIDIA             |  |
| Maximum displays per videocard         | 4                  |  |
| Maximum resolution                     | 7680 x 4320 pixels |  |
| Parallel processing technology support | 2-Way NVLink       |  |
| Processor frequency                    | 1695 MHz           |  |
| Weight & dimensions                    |                    |  |
| Depth                                  | 267 mm             |  |
| Height                                 | 40 mm              |  |
| Weight                                 | 111 g              |  |



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## CyberServe Xeon SP2-1029GQ-TRT GPU Server features



### 3 Years Warranty as Standard

Buy with confidence knowing all Broadberry CyberServe rack servers are backed up by our 3 year warranty, with further warranty upgrade options available.



### Trusted CyberServe Server Platform

The Broadberry range of CyberServe® rackmount are trusted as the server of choice for thousands of companies from SMBs to enterprise's across the globe.



### Configure with up to 1.5TB RAM

Ready for the most demanding enterprise applications, the Broadberry CyberServe Xeon SP2-1029GQ-TRT GPU Server can be configured with up to 12 DDR4 ECC Registered memory modules.



### Extra Expansion Slots

The CyberServe Xeon SP2-1029GQ-TRT GPU Server has 2 PCI-Express expansion slots allowing for plenty of future expandibility



### Optional Hot-Swap Power Supply

The CyberServe Xeon SP2-1029GQ-TRT GPU Server is configurable with a hot-swap redundant power supply, meaning minimal down-time for mission critical applications.



### Based on Tesla GPU

GPU SuperComputing servers offer massive processing power and HPC performance, considerably accelerating applications.



### Supports SATA Drives

This system can be configured with SATA drives for cost-effective 12gb/s storage.



### Small Form Factor Storage

The CyberServe Xeon SP2-1029GQ-TRT GPU Server boasts high density storage and ultimate energy efficiency, catering for up to 2x High-Performance 2.5" SSD or Hard Drives



### Dual Intel Xeon SP Processors

Designed for the most demanding tasks, the dual socket range of CyberServe Xeon SP® servers support the latest Intel Xeon® processor Scalable series

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### Performance Breakthroughs

Powered by the revolutionary Intel Xeon SP processor range, CyberServe Xeon SP servers deliver massive improvements in every metric over the previous generation of Xeon E7 and E5 processors.



### Designed for Cloud Computing

The Broadberry CyberServe Xeon SP® range has been built from the ground up for private / hybrid cloud environments, clustering, virtualised infrastructure and database management.



### Completely Redesigned QPI

The Broadberry CyberServe Xeon SP® range has a completely redesigned QPI system, producing up to 21% improvement in data efficiency as well as a 50% reduction in idle power.



### With IPMI Remote Management

All Broadberry CyberServe Xeon SP® rack servers are compatible with iPMI functionality, enabling complete control and management of your server through IP.



### Reduce I/O Network Latency

Boasting Intel Integrated I/O on the processor, Broadberry CyberServe Xeon SP® servers accelerate data availability to the processing cores, reducing latency by up to 30%.



### Intel® AVX-512 Boosts Speed

Intel Advanced Vector Extensions 512, the latest x86 vector instruction set with up to two fused-multiply add units and other optimisations, accelerates performance for the most demanding computational tasks.



### Intel® QuickAssist Technology

Improving performance across applications and platforms, Intel QAT enhances security and compression performance in cloud, networking, big data, and storage applications.



### More Advanced Omni-Path

The CyberServe Xeon SP® range replaces InfiniBand technology with a newer, more advanced interconnect called Omni-Path, allowing for 100Gbps bandwidth with no loss of PCIe lanes.

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### Dedicated Account Manager

You'll get your own dedicated account manager who's available to you at all times.

### 3 Year Warranty

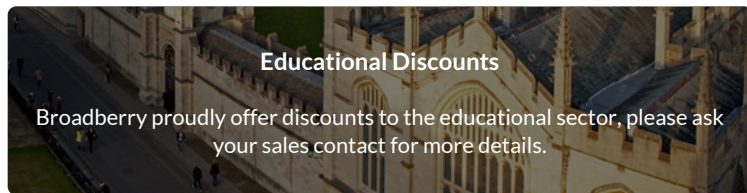
We take customer service very seriously, that's why we offer 3 years warranty as standard.

### Industry Leading Support

Should you need any help, our technical support department are always here to help.

### Best Price Guarantee

We're so confident in our great value server and storage solutions, we offer a guarantee!



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