# Intel Xeon E5-2470 processor 2.3 GHz 20 MB Smart Cache

**Brand :** Intel

**Product family:** Xeon

**Product code:** CM8062007187242

**Product name :** E5-2470

Intel® Xeon® Processor E5-2470
(20M Cache, 2.30 GHz, 8.00 GT/s Intel® QPI)
Intel Xeon E5-2470. Processor family: Intel® Xeon® E5 Family, Processor socket: LGA 1356 (Socket B2), Processor lithography: 32 nm. Memory channels: Triple-channel, Maximum internal memory supported by processor: 384 GB, Memory types supported by processor: DDR3-SDRAM. Market segment: Server, Supported instruction sets: AVX, Scalability: 2S. Intel® Turbo Boost Technology 2.0 frequency: 3.1 GHz. Package type: Retail box

| Processor | |
|---|---|
| Processor manufacturer * | Intel |
| Processor model * | E5-2470 |
| Processor base frequency * | 2.3 GHz |
| Processor family * | Intel® Xeon® E5 Family |
| Processor cores * | 8 |
| Processor socket * | LGA 1356 (Socket B2) |
| Component for | Server/workstation |
| Processor lithography * | 32 nm |
| Processor series | Intel Xeon E5-2400 |
| Processor threads | 16 |
| System bus rate | 8 GT/s |
| Processor operating modes * | 64-bit |
| Processor boost frequency | 3.1 GHz |
| Processor cache | 20 MB |
| Processor cache type | Smart Cache |
| L3 cache speed | 2.3 GHz |
| Thermal Design Power (TDP) | 95 W |
| Box * | ✗ |
| Cooler included * | ✗ |
| VID Voltage Range | 0.6 - 1.35 V |
| Compatible chipsets | Intel® C602, Intel® C602J, Intel® C604, Intel® C606, Intel C608 |
| Stepping | C2 |
| Bus type | QPI |
| Number of QPI links | 1 |
| Memory bandwidth supported by processor (max) | 38.4 GB/s |
| Processor codename | Sandy Bridge EN |
| Processor code | SR0LG |
| Processor ARK ID | 64623 |

| Memory | |
|---|---|
| Maximum internal memory supported by processor | 384 GB |

| Features | |
|---|---|
| Images Type Map | ✗ |

| Processor special features | |
|---|---|
| Intel® Hyper Threading Technology (Intel® HT Technology) | ✓ |
| Intel® Identity Protection Technology (Intel® IPT) | ✗ |
| Intel® Turbo Boost Technology | 2.0 |
| Intel Flex Memory Access | ✗ |
| Intel® Smart Cache | ✓ |
| Intel® AES New Instructions (Intel® AES-NI) | ✓ |
| Enhanced Intel SpeedStep Technology | ✓ |
| Intel Trusted Execution Technology | ✓ |
| Intel® Turbo Boost Technology 2.0 frequency | 3.1 GHz |
| Intel Enhanced Halt State | ✓ |
| Intel VT-x with Extended Page Tables (EPT) | ✓ |
| Intel Demand Based Switching | ✓ |
| Intel 64 | ✓ |
| Intel Identity Protection Technology version | 0.00 |
| Intel Virtualization Technology (VT-x) | ✓ |
| Intel Virtualization Technology for Directed I/O (VT-d) | ✓ |
| Conflict-Free processor | ✗ |
| Intel® vPro™ Platform Eligibility | ✓ |

| Operational conditions | |
|---|---|
| Tcase | 78 °C |

| Technical details | |
|---|---|
| Bus bandwidth | 8 |

| Memory | |
|---|---|
| Memory types supported by processor | DDR3-SDRAM |
| Memory clock speeds supported by processor | 800,1066,1333,1600 MHz |
| Memory channels * | Triple-channel |
| ECC | ✓ |

| Graphics | |
|---|---|
| On-board graphics card * | ✗ |

| Features | |
|---|---|
| Execute Disable Bit | ✓ |
| Idle States | ✓ |
| Thermal Monitoring Technologies | ✓ |
| Market segment | Server |
| Maximum number of PCI Express lanes | 24 |
| PCI Express slots version | 3.0 |
| Supported instruction sets | AVX |
| Scalability | 2S |
| CPU configuration (max) | 2 |
| Embedded options available | ✗ |
| PCI Express CEM revision | 3.0 |
| Export Control Classification Number (ECCN) | 5A992C |
| Commodity Classification Automated Tracking System (CCATS) | G077159 |

| Technical details | |
|---|---|
| Bus type units | GT/s |
| Launch date | Q2'12 |
| Processor cache | 20480 KB |
| Product type | Processor |
| Status | Discontinued |
| Maximum memory | 384 GB |
| Processor brand name | Intel Xeon |
| Supported memory types | DDR3-SDRAM |
| Last change | 63903513 |
| Product family | Intel Xeon Processor E5 Family |
| Bus speed | 8 GT/s |

| Logistics data | |
|---|---|
| Harmonized System (HS) code | 8542310001 |

| Packaging data | |
|---|---|
| Package type | Retail box |

| Weight & dimensions | |
|---|---|
| Processor package size | 45mm x 42.5mm |

| Other features | |
|---|---|
| Intel® Virtualization Technology (Intel® VT) | VT-d, VT-x |
| Maximum internal memory | 384 GB |
| Maximum internal memory | 393216 MB |

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