Supermicro 5037A-i

The 5037A-i from Supermicro is a mainstream workstation that includes an Intel Xeon processor, up to 256GB of ECC registered memory, and up to two NVIDIA Quadro graphics cards. You can customize the system to suit your particular budget and needs. The 5037A-i also comes with Supermicro's computer health monitoring tools that keep track of CPU core temperatures, memory voltages, and chipset voltages. It also provides thermal control for the motherboard's five fan connectors.

The system sent to us was built with an Intel Xeon E5-1650, 16GB of ECC registered DDR3, and an NVIDIA Quadro 5000. Supermicro installed these high-performance components in a black steel midtower, so it's a sturdy system. The front chassis features two USB 3.0 ports, two USB 2.0 ports, and audio I/O.

On the interior, there's space behind the drive cage to add a 120mm fan, if you need more airflow. A 120mm rear exhaust fan aids the CPU cooler in expelling heat generated by the CPU, memory, and motherboard components. Supermicro cleanly routed the cables to optimize airflow and make it easy to work inside the case.

Supermicro has also designed the 5037A-i with reliability in mind. Our test build featured a 500GB Seagate Enterprise drive. The use of ECC registered memory provides the server-grade reliability you'll want in a workstation. The 5037A-i is also quiet, as the rear exhaust fan should never exceed 21dB during operation. For efficiency, Supermicro uses a 900W power supply that meets the 80 PLUS Gold certification.

The majority of the cost that went into this build is the Quadro 5000, so we benchmarked the system with SPECviewperf 11 to test its capabilities. This synthetic test is designed to push the kinds of loads you'd experience when rendering video and other 3D content. The 5037A-i turned in impressive results of 45.76 in catia-03, 40.92 in lightwave-01, 54 in maya-03, and 40.95 in sw-02. The Intel Xeon E5-1650 also posted high marks, with 392.54 MPixels per second in SiSoftware Sandra's x16 Multi-Media Float iAVX test. It showed well in Cinebench 11.5 and POV-Ray 3.7 Beta, too, scoring 8.53 and 1514.57 pixels per second, respectively.

This workstation provides you a processor and graphics card you need to power through tough rendering tasks. There's plenty of upgradeability here, too, making the 5037A-i is a workstation you'll able to use for years. ■

BY NATHAN LAKE

5037A-i
$2,888.70 (as tested) | Supermicro
www.supermicro.com

Benchmark Results	Supermicro 5037A-i
3DMark 11 Extreme	
3DMark Overall	X1005
Graphics Score	833
Physics Score	10456
Combined Score	1270
Graphics Test 1	4.56
Graphics Test 2	4.61
Graphics Test 3	4.48
Graphics Test 4	2.62
Physics Test	33.19
Combined Test	5.91
PCMark 7	
Overall	3262
Productivity	2216
Creativity	2246
Entertainment	3455
Computation	3522
System Storage	1654
SiSoft Sandra 2012 SP5 Lite	
Processor Arithmetic	
Dhrystone SSE4.2 (GIPS)	161.93
Whetstone iSSE3 (GFLOPS)	117.8
Processor Multi-Media	
x16 Multi-Media Integer iAVX (Mpixels per second)	281.1
x16 Multi-Media Float iAVX (Mpixels per second)	392.54
x8 Multi-Media Double iAVX (Mpixels per second)	223.67
Cinebench 11.5	
CPU*	8.53
POV-Ray 3.7 Beta**	1514.57
SPECviewperf 11	
catia-03	45.76
ensight-04	39.57
lightwave-01	40.92
maya-03	54
proe-05	9.34
sw-02	40.95
tcvis-02	37.79
snx-01	37.83

* points

** pixels per second

Test system specs: Processor: Intel Xeon E5-1650 @ 3.2GHz (3.8GHz Turbo); Motherboard: Supermicro X9SRA; GPU: Nvidia Quadro 5000; RAM: 16GB DDR3-1600 ECC registered server memory; Storage: 500GB Seagate Enterprise; OS: Windows 7 Ultimate (64-bit)