

Amdahl 580 Series Product Enhancement

To maintain a price/performance edge over the IBM 3090, Amdahl Corporation announced a new 5890-190 uniprocessor last January 1987, which has since been upgraded to a 5890-190E. Amdahl followed this introduction with the February announcement of a new three-way processor, the 5890-400E, and the unveiling of new E models, enhanced 5890 versions offered at the same price as the previous 5890 versions. Amdahl's announcement of new processors along with the unveiling of the enhanced E models came just weeks after IBM introduced new 3090 models in addition to its own E models, enhanced versions of the previous 3090 product line.

With the announcement of two new 5890s, Amdahl now features five processors marketed as plug-compatible replacements for IBM 3090 processors. The new Amdahl 5890-190E, the first single-processor offering in the model line, establishes a new 5890 entry point for Amdahl 580 users contemplating a move to Amdahl's latest mainframe generation. A base -190E features 32 megabytes of main memory expandable to 256 megabytes and 16 channels expandable to 48 channels. It's been rated at 21 MIPS (millions of instructions per second).

Amdahl is calling the -190E the most powerful single-processor mainframe it has ever offered. It's recommended for environments that run applications that don't make best use of dual-processor configurations. Products falling under this category include single address space applications such as IBM's CICS and IDMS and IMS which serializes on a single control region. It's upgradable to a 5890-300E dual processor or 5890-600E four-processor system and supports both System/370 and System/370 Extended Architecture environments.

A base 5890-190E configuration lists for \$2,625,000 and first became available in March. Support for the UTS/580 Unix-based operating system as well as 580/Expanded Storage and four domains with the 580/Multiple Domain Feature became available during second quarter 1987. Support for the 4.5 megabytes per second data transfer speed will be available during third quarter 1987. Amdahl made the new higher transfer speed available to all previous 580 models in 1986 when it introduced the feature.

Last February 12, Amdahl added more zip to all its existing 5890s, gave them an E designation, and brought out a three-way processor, the 5890-400E. Positioned between the 5890-300E dual processor and 5890-600E four-way system, the -400E is said to have 1.35 to 1.45 times the internal execution rate of the -300E. It can be configured with 128, 192, 256, 384, or 512 megabytes of main storage, and 64, 80, or 96 channels. It's field upgradable to the -600E. A basic -400E model with 128 megabytes of memory and 64 channels lists for \$7,275,000 and will be available during fourth quarter 1987.

In addition to the new processors, Amdahl increased the performance of the 5890-190E, -300E, and -600E by up to four percent, and also increased the performance of the -200E by 13 percent. Amdahl improved performance through the use of faster 256K-bit memory chips. The company achieved additional performance improvements in the -200E through modifications to its instruction pipeline.

Combined with performance improvements announced in August 1986, Amdahl claims it has implemented a total performance improvement of 14 percent. The 5890 Series has now been given two performance boosts since it was initially announced in October 1985. With the announcement of E models, Amdahl published performance measures for specific models. The -300E dual processor is said to have 1.04 times the throughput of the 5890-300. The -190E provides 0.51 to 0.54 times the instruction execution rate of the -300E, and up to 1.04 times the throughput of the -190. The -200E dual processor provides approximately 0.82 times the throughput of the -300E, and approximately 1.13 times the throughput of the -200. The -400E three-way processor provides 1.35 to 1.45 times the internal execution rate of the -300E. The -600E four-way processor provides from 1.7 to 1.9 times the internal execution rate of the -300E when operating in single-image mode, and up to 1.04 times the throughput of the -600. The -600E approximates the performance of the -300E on each side of the partition operating in partition mode.

First customer shipments of the enhanced -200E began in March. Amdahl plans to ship the enhanced -190E and -300E by June, and the enhanced -400E and -600E by fourth quarter 1987. Customers who acquired a 5890 between February 12 and date of first customer shipment will get an upgraded E version. Customers with installed 5890s can upgrade them to a corresponding E model for \$120,000. □