

The Bulgarian IZOT 1703 was recently seen by a member of the committee. It consists of an ES-1037 CPU (called the IZOT 1014E in Bulgaria), which runs the IBM 360/370 instruction set, and four ES-2706 peripheral processors, each of whose peak performance is 12 Mflops. The ES-1037 CPU itself is rated at 1.2 Mflops (a rate of 1 MIPS looks more reasonable based on the other parameters), but the total throughput is claimed to be 120 Mflops when 10 processors are present. This seems unlikely considering the fact that the ES-2706 processors are connected in series to a single block multiplexer channel (Izotimpex, 1986a). However, for certain scientific applications, for example, in molecular chemistry, four peripheral processors of this type working in parallel have been able to outperform a Cray-1. Thirty-five IZOT 1703s were produced in 1987 (Rabotnichesko Delo, Jan. 20, 1988).

The IZOT 1703 is the same machine mentioned to Western visitors at the Soviet Institute of Space Research (IKI) as a joint development of IKI and IZOT (Aviation Week and Space Technology, Oct. 12, 1987). It is eagerly awaited at some Soviet scientific institutes. The size of the CPU cabinet, with 16 Mbytes of RAM, is smaller than any other CPU and memory that have been seen so far in CMEA. It is likely that this small size has been achieved by using some Western components that may have been acquired legally or by covert means. Bulgaria has been known to use Western chips in personal computers and other Western components in disk drives, but this is the first time that this practice has been seen at the high-speed computer level.