PDP-10 PRICE LIST

PROCESSOR & PROCESSOR OPTIONS

KA10   ARITHMETIC PROCESSOR: central processing unit for all PDP-10 sys-   **$ 83,000**
tems includes:

- 300 character/second photoelectric paper tape reader
- 50 cps paper tape punch
- 10 cps console teleprinter (KSR-35) (KSR-37 furnished when available)
- a functional Operator Console having many advanced features
- a multiplexed Input-Output Processor (IOP) with seven levels of priority
  interrupt
- a real time clock

KM10   FAST REGISTERS: 16-36 bit integrated circuit registers used as multiple   **$ 9,000**
accumulators and/or index registers and for highly iterative program
loops. Replaces the first 16 locations of main core memory.

KT10A   DUAL MEMORY PROTECTION & RELOCATION REGISTERS: provide   **$ 9,500**
multiprogramming hardware for automatic protection and relocation of
reentrant and non-reentrant code. (Required for time-sharing).

KE10   EXTENDED ORDER CODE: provides hardware Floating Point Arithmetic   **$ 12,000**
and Byte - Manipulation instructions. For processor without this option,
instructions are software simulated. (Required for time-sharing and disc
systems).

CORE MEMORY

CORE MEMORIES: available in various sizes and speeds. Each memory
stores 36 data bits plus a parity bit. Each operates asynchronously with
respect to the central processor and channel establishing its own indepen-
dent timing cycle. Each memory has up to four ports thus allowing access
to 4 processors and/or channels. One port is provided with each memory
module.

MA10	16,384 Words 1.00 μs	$ 72,000
MA10A	8,192 Words 1.00 μs	$ 40,000
MB10	16,384 Words 1.65 μs	$ 62,000

MC10   ADDITIONAL MEMORY-PROCESSOR ACCESS PORT: provides the ad-   **$ 1,500**
ditional cables and logic to connect an additional processor/channel to
a memory port.

DF10   DATA CHANNEL: permits data transfers between high speed devices and   **$ 12,000**
core memory. It will service up to eight RC10's (swapping disc control)
or similar high speed devices.

| MX10 | MEMORY MULTIPLEXER: provides for the connection of multiple chan-nels to a single memory bus. Required when more than four memory ports are needed per memory module. | $ 4,500 |

AUXILIARY STORAGE

Disc Systems

| RD10 | SWAPPING DISC FILE: stores 512,000 36-bit words. Average latency time, 17 μs. Transfer rate is 13.3 μs per 36 bit word. | $ 32,500 |

The RD10 provides high speed swapping of programs directly in and out of core memory in time-sharing systems. The RD10 can also be used for user file storage. Up to 4 RD10's can be connected to one RC10 disc control unit.

| RC10 | SWAPPING DISC SYNCHRONIZER/ADAPTER: provides control for up to 4 RD10 disc files. Connects to the DF10 data channel which provides a direct path to memory. | $ 17,000 |

| RB10A | STORAGE DISC FILE (dual positioning): Stores from 20,971,520 to 104,857,600 36-bit words in multiples of 4,194,304. Average access time is 170 ms. Transfer rate ranges from 22.5 μs to 72 μs per word de-pending on zone being accessed. Dual head positioning arms permit overlapping of data transfer and seek operations. Basic unit includes six discs and RA10 Synchronizer/Adapter. | $220,000 |

| RB10B | STORAGE DISC FILE (single positioning): same as above but equipped with one head positioning mechanism. | $190,000 |

| RB10C | ADDITIONAL DISC: A maximum of 20 discs (each with a capacity of 4,194,304 words) can be added to the basic RB-10. | $ 5,000 |

Magnetic Tape Systems

| TD10 | DECtape CONTROL: provides control for up to eight TU55 DECtape transports. | $ 15,300 |

| TU55 | DECtape UNIT: reads and writes magnetic tape at a 15 KC character rate. (Tapes are 3 1/2" diameter, 260' long and 3/4" wide). Tape units are bi-directional and redundantly recorded. Each tape has a di-rectory thus allowing random access to user files. | $ 2,350 |

TM10 MAGNETIC TAPE CONTROL: controls up to eight tape transports. $ 18,000
Permits reading either 7 or 9 channel (or combination of both) industry
standard tape.

TU20 MAGNETIC TAPE UNIT: reads and writes seven-channel industry stand- $ 12,000
ard tape at 45 ips, and densities of 200, 556, or 800 bpi. (36 KC).

TU20A MAGNETIC TAPE UNIT: reads and writes 9-channel IBM-compatible $ 13,000
magnetic tape at 45 ips and a density of 800 bpi.

INPUT-OUT DEVICES

Punched Card Equipment

CR10 CARD READER: reads 80-column punched cards at the rate of 1000 cpm. $ 15,000
(800 cpm in systems using 50 Hz power).

CP10 CARD PUNCH: punches 80-column cards at the rate of 100 cpm. $ 30,000

Printers & Plotters

LINE PRINTER: 64 characters per column, 132 columns per line.

LP10A	300 lpm	$ 25,000
LP10B	600 lpm	$ 35,000
LP10C	1000 lpm	$ 50,000

XY10 PLOTTER CONTROL: interface for Calcomp 500 and 600 series digital $ 3,000
incremental plotters.

CALCOMP PLOTTER WITH CONTROL:

	Includes Calcomp Model	Step Size (inches)	Speed (steps/ minute)	Paper width (inches)	
XY10A	XY10(565)	0.01" 0.005"	18000 18000	12	$ 9,000
XY10B	XY10(563)	0.01" 0.005"	12000 18000	31	$ 13,400

Data Communication Equipment

DATA LINE SCANNER: provides on-line servicing of up to 64 communication lines. Accommodates any device which uses 5-level or 8-level serial teletype code at speeds up to 100 kilobaud. Full duplex with local copy, and half duplex (simplex) data line modes are available on each line serviced. Send-only and receive-only stations can also be used.

DC10A	CONTROL UNIT: the scanner and control unit for the DC10 communication controller provides cabinet space and power supplies for various combinations of line equipment up to 32 lines maximum. The second 32-lines require the DC10F Expander Cabinet.	$ 9,000
DC10B	8-LINE GROUP UNIT: provides teletype interfaces for up to 8 local lines, full or half duplex. May be used with datasets.	$ 5,000
DC10C	8-LINE TELEGRAPH RELAY ASSEMBLY: provides conversion from local to long lines and has half-duplex facilities.	$ 3,000
DC10D	TELEGRAPH POWER SUPPLY: the standard line-voltage supply used with DC10C.	$ 500
DC10E	EXPANDED DATASET CONTROL: provides expanded control of eight datasets in the DC10 system, and controls two automatic dialing units (if dial-units are part of system).	$ 5,000
DC10F	EXPANDER CABINET: provides space and power supplies for expansion beyond capacity of DC10A.	$ 2,000
KSR33	TELEPRINTER	$ 900
KSR35	TELEPRINTER	$ 2,500
ASR33	TELEPRINTER	$ 1,200
DA10	PDP-8 or PDP-9 INTERFACE	$ 5,000
680	TYPE 680 DATA COMMUNICATIONS SYSTEM: services up to 128 teletype lines using a PDP-8. The system requires a DA10 to interface to the PDP-10. (See 680 Product Bulletin for more detailed information and prices).	
	PDP-8 COMPUTER: rack mounted, including cabinet	$ 13,500
681	SERIAL LINE ADAPTER: adds instructions to PDP-8 which permit it to accommodate a SLM Type 685.	$ 1,500

682	LOCAL LINE PANEL: this unit facilitates the connection of up to 32 local 20 ma. neutral D.C. keyed terminals such as teletypes to the SLM Type 685.	$ 600
683	TELEGRAPH INTERFACE PANEL: this unit accommodates up to 16 telegraph line adapters Type G852 (32 lines).	$ 1,200
G852	DUAL TELEGRAPH LEVEL CONVERTER: interfaces long telegraph lines to DEC logic levels. Can operate both Neutral and Polar. Two full duplex lines per module.	$ 215
685	SERIAL LINE MULTIPLEXER: can interface up to 64 full duplex Teletype line units. Does not include line units; does include one clock. Three additional clocks may be added.	$ 4,300
W750	TELETYPE LINE UNIT: activates Serial Line Multiplexer (685). One unit required per line.	$ 100
686	LINE SAMPLING CLOCK UNIT: additional clock for 685 multiplexer; for intermixing speeds, 3 may be added.	$ 450
791	POWER SUPPLY: (Polar or Neutral ±80v) Line Power Supply.	$ 400
635A	POWER SUPPLY: (120v Neutral) Line Power.	$ 500

Display Systems

346/340	PRECISION INCREMENTAL CRT DISPLAY: plots points, lines, vectors, and characters on a 9-3/8 inch square raster of 1,024 points along each axis. 1-1/2 microseconds is required per point in vector, increment, and character modes. Random point plotting rate of 35 microseconds. A 370 high-speed Light Pen is included.	$ 32,300
342B	CHARACTER-GENERATOR for 346/340	$ 7,700
348/VR30	PRECISION POINT PLOTTING DISPLAY: operates at a maximum plotting rate of 20 KC or one point every 50 μs on a 9-3/8" x 9-3/8" display area. Number of addressable points along each axis is 1024. A 370 high-speed Light Pen is included.	$ 18,925

MISCELLANEOUS

GP10	INTERFACE TO PDP-10 I/O BUS: includes cabinet, 2-728 power supplies, 844 power control, indicators, end panels, fan, convenience outlet with fans, and BS10A/15' cable set. Logic provides a status register, device decoding, read in gating and line buffering.	$ 3,000
GP10M	GP10 less logic	$ 2,000
GP10L	GP10: interface logic only	$ 2,000

CABLE SET: provides cables for interconnecting I/O devices. Set includes 2 BC10A and 1 BC10B cables.

BS10A/5	(5 feet)	$ 450
BS10A/7	(7 feet)	$ 470
BS10A/10	(10 feet)	$ 500
BS10A/15	(15 feet)	$ 530
BS10A/25	(25 feet)	$ 600
BS10A/35	(35 feet)	$ 690

Cabinets

CAB-9A	With full-length single doors front and back; without indicator panel; without end panels.	$ 500
CAB-9B	With full-length single doors front and back; with indicator panel; without end panels.	$ 600
CAB-9C	With snap-on covers on front and single door on rear; without indicator panel; without end panels.	$ 500
CAB-9D	With snap-on covers on front and single door on rear; with indicator panel; without end panels.	$ 600
	END PANELS, PER PAIR	$ 200