

MINICOMPUTERS AND MANUFACTURERS

MANUFACTURER	Atron Corp. St. Paul, Minn.	Cincinnati Milacron Cincinnati, Ohio	Compiler Systems, Inc. Ridgefield, Conn.	Computer Logic Systems Waltham, Mass.	Datacraft Corp. Ft. Lauderdale, Fla.	Data General Corp. Southboro, Mass.			
MODEL NUMBER	501	CIP/2000	CIP/2100	CSI 24	CLS-18	6024/5	Nova 1200	Nova 800	Supernova SC
INQUIRY CARD NO.	301	302	303	305	306	307	308	309	310
MEMORY									
Word Length (bits)	8	8/9	8/9	24	18	24	16	16	16
Min.—Max. Size (words)	4K-32K	4K-32K	4K-32K	4K-8M	4K-32K	4K-32K	2K-32K	2K-32K	2K-32K
Cycle Time (μs)	2.0	1.1	1.1	0.9	0.96	1.2	1.2	0.8	0.3
Memory Parity	optional	optional	optional	no	no	standard	no	no	no
Memory Protection	optional	optional	optional	standard	standard	optional	no	no	optional
CPU FEATURES									
Instruction Word Length (bits)	1-5 (bytes)	8	16	24	18	24	16	16	16
Total Hardware Registers	NA	16	3	9	23	6	13	13	8
Index Registers (no., type)	variable/auto	1	1	1, hardware	4, bipolar	3	2, hardware	2, hardware	2, hardware
No. of Address Modes	2	1	7	2	9	3	4	4	4
Byte Addressing	yes	yes	yes	yes	yes	yes	no	no	no
Byte Processing	yes	yes	yes	no	yes	yes	yes	yes	yes
I/O AND CONTROL									
I/O Word Length (bits)	8 plus parity	---	---	24	18	24	16	16	16
DMA Channel	optional	optional	optional	standard	standard	standard	standard	standard	standard
Max. Word Transfer Rate	500K bytes/sec	909K bytes/sec	909K bytes/sec	1.1 MHz	1.04 MHz	800 kHz	833 kHz	1.25 MHz	1.25 MHz
Priority Interrupt Levels	variable	64	64	up to 256	8	16	16	16	16
Response Time to Interrupts (μs)	NA	9.9-13.2	9.9-13.2	8	1.9	10.8	6.0	2.6	4.5
SOFTWARE									
Assembler	2-pass relocatable, macro	firmware dependent	2-pass	1-pass, relocatable, macro	2-pass, free form, relocatable, macro, auto addressing	yes	2-pass, relocatable, conditional assy	2-pass, relocatable, conditional assy	2-pass, relocatable, conditional assy
Compilers	NA	NA	NA	ALGOL (both)	NA	FORTRAN IV	FORTRAN, ALGOL, BASIC	FORTRAN, ALGOL, BASIC	FORTRAN, ALGOL, BASIC
Real-Time Executive Monitor	NA	NA	NA	4 levels	NA	optional	yes	yes	yes
Disc Operating System	NA	yes	yes	yes	yes	optional	yes	yes	yes
PRICES									
Computer with 4K Memory	\$7,475	\$5,550	\$5,875	\$14,950	\$9,870	\$15,500	\$ 5,100	\$ 6,600	\$11,550
Additional 4K Memory	1,250	2,500	1,800	6,950	3,600	4,800	2,700	3,000	5,950
ASR-33 Teletype	2,000	interface std	interface std	2,250	1,600	2,500	1,600	1,600	1,600
Real-Time Clock	NA			1,250	400	1,500	400	400	400
Powerfail Protect	100	{ 1,050	{ 350	{ 1,000	{ 400	{ 900	{ 400	{ 400	{ 400
Automatic Restart	optional								
Paper Tape Reader	NA	---	---	2,750	1,600	2,560	2,600	2,600	2,600
Paper Tape Punch	NA	---	---	4,250	2,200	3,700	2,200	2,200	2,200
Magnetic Tape Units	9,035	---	---	3,850 9,750	6,500	5,000	11,000	11,000	11,000
Read-Only Memory	NA	256/\$600	256/\$600	NA	1K x 18	NA	NA	NA	NA
OTHER DATA									
Date of First Delivery	9/69	---	---	12/70	3/71	9/71	2/71	4/71	6/71
Delivery Time	30 da	---	---	90-120 da	60 da	---	---	---	---

Code: ---No information supplied NA--Not available

MINICOMPUTERS AND MANUFACTURERS

MANUFACTURER	Data General Corp. Southboro, Mass.		Datamate Computer Systems, Inc. Big Spring, Texas		Digital Computer Controls, Inc. Fairfield, N.J.		Digital Equipment Corp. Maynard, Mass.			
MODEL NUMBER	Nova	Supernova	Datamate 16	Datamate 70	D-112	D-216	PDP-8/I	PDP-8/L	PDP-8/E	11/20
INQUIRY CARD NO.	311	312	313	314	315	316	317	318	319	320
MEMORY										
Word Length (bits)	16	16	16	16	12	12	12	12	12	16
Min.-Max. Size (words)	2K-32K	4K-32K	8K-32K	4K-32K	4K-32K	4K-32K	4K-32K	4K-8K	4K-32K	1K-124K
Cycle Time (μ s)	2.6	0.8	1.0	1.0	1.2	1.2	1.5	1.6	1.2/1.4	950
Memory Parity	no	no	no	no	optional	optional	optional	optional	optional	optional
Memory Protection	no	optional	no	no	standard	standard	optional	optional	optional	no
CPU FEATURES										
Instruction Word Length (bits)	16	16	16	16	12	16	12	12	12	16
Total Hardware Registers	7	8	7	8	6	10	4	4	5	8
Index Registers (no., type)	2, hardware	2, hardware	1, hardware	2, hardware	8, auto index	8, gen purpose	8, auto (core)	8, auto (core)	8, auto (core)	8
No. of Address Modes	4	4	8	6	4	8	2	2	2	12
Byte Addressing	no	no	no	no	no	yes	no	no	no	yes
Byte Processing	yes	yes	yes	no	yes	yes	no	no	yes	yes
I/O AND CONTROL										
I/O Word Length (bits)	16	16	16	16	12	16	6	6	6	16
DMA Channel	standard	standard	standard	standard	optional	standard	standard	standard	standard	standard
Max. Word Transfer Rate	285 kHz	1.25 MHz	1 MHz	1 MHz	833 kHz	833 kHz	1.5 μ s	1.6 μ s	1.2 μ s	2.5 MHz
Priority Interrupt Levels	16	16	64	64	1	4	4	4	12	4
Response Time to Interrupts (μ s)	12	4.5	2	2	---	---	12.6	13.2	10.4	7.2
SOFTWARE										
Assembler	2-pass, relocatable, conditional assy	2-pass, relocatable, conditional assy	2-pass, relocatable, macro	2-pass, relocatable	yes	yes	1-pass, relocatable, macro	1-pass, relocatable, macro	1-pass, relocatable, macro	2-pass, relocatable, macro
Compilers	FORTRAN, ALGOL BASIC	FORTRAN, ALGOL BASIC	FORTRAN, FORTRAN IV BASIC	NA	yes	yes	yes	yes	yes	FORTRAN IV, BASIC
Real-Time Executive Monitor	yes	yes	NA	NA	yes	yes	yes	yes	yes	yes
Disc Operating System	yes	yes	NA	NA	yes	yes	yes	yes	yes	yes
PRICES										
Computer with 4K Memory	\$ 7,600	\$ 9,250	\$14,900 (8K)	\$8,500	\$3,990	\$8,720	\$12,800	\$ 8,500	\$ 6,500	\$10,800
Additional 4K Memory	3,650	3,650	8,000 (8K)	2,700	2,700	3,100	4,000	4,000	3,000	3,500
ASR-33 Teletype	1,600	1,600	1,700	1,700	1,200	1,200	1,500	1,500	1,500	standard
Real-Time Clock	400	400	500 (prog)	500 (prog)	125	200	300	300	300	250
Powerfail Protect	{ 400	{ 400	standard	standard	{ 200	standard	{ 500	{ 500	{ 250	standard
Automatic Restart			standard	standard		standard				standard
Paper Tape Reader	2,600	2,600	2,400	2,400	2,100	2,100	2,400	2,400	2,400	3,900
Paper Tape Punch	2,200	2,200	2,900	2,900	2,100	2,100	2,000	2,000	2,000	---
Magnetic Tape Units	11,000	11,000	9,500	9,500	2,250	2,250	10,600	10,600	10,600	9,950
Read-Only Memory	1K/\$1,600	NA	NA	256/\$1,000	256/\$640	1024/\$1,300	NA	NA	256/\$800/ 1,024/\$1,500	1K/\$1,500
OTHER DATA										
Date of First Delivery	2/69	4/69	11/69	12/70	8/70	8/71	---	---	---	3/70
Delivery Time	30 da	60 da	30 da	30 da	30-90 da	---	30 da	30 da	---	30 da

MANUFACTURER	Digital Equipment Corp. Maynard, Mass.		Digital Scientific Corp. San Diego, Calif.	Electronic Products International, Inc. Wheeling, Ill.	Electronic Processors, Inc. Englewood, Colo.	Friden Div. Singer Co. San Leandro, Calif.	Fujitsu Ltd. New York, N.Y.	General Automation, Inc. Santa Ana, Calif.		
MODEL NUMBER	11/15	15	Meta 4	Elbit 100	EPI 118	System 10	Facom R	SPC-12	SPC-16	GA 18/30
INQUIRY CARD NO.	321	322	323	324	325	326	327	328	329	330
MEMORY										
Word Length (bits)	16	18	18	12	18	6	16	8	16	18
Min.—Max. Size (words)	1K-32K	4K-131K	4K-65K	1K-12K	4K-32K	10K-110K	1K-32K	4K-16K	4K-32K	4K-32K
Cycle Time (μs)	950	0.8	0.09	2.0	0.9	3.3	1.5	2.16	0.96	1.2
Memory Parity	optional	optional	standard	no	no	no	standard	no	no	standard
Memory Protection	no	optional	yes	no	yes	yes	no	no	no	standard
CPU FEATURES										
Instruction Word Length (bits)	16	18	32	12	18	10	16	12	16	16
Total Hardware Registers	8	20	up to 32	1	2	19	6	10	25	20
Index Registers (no., type)	8	1, hardware	varied	NA	no	60	3	3, hardware	6, hardware	3, hardware
No. of Address Modes	12	4	4	3	3, instruction	1	5	5	11	4
Byte Addressing	yes	no	no	no	yes	no	no	yes	yes	no
Byte Processing	yes	no	no	yes	yes	yes	yes	yes	yes	no
I/O AND CONTROL										
I/O Word Length (bits)	16	18	16	12	31 out, 21 in	10	16	12	16	16
DMA Channel	standard	standard	standard	optional	optional	—	standard	optional	standard	5 standard
Max. Word Transfer Rate	2.5 MHz	1 MHz	1 MHz	250 kHz	1.11 MHz	1.8 kHz	800K bytes/sec	460 kHz	1.04 MHz	833 kHz
Priority Interrupt Levels	1	4	variable	4	64	2	1	1 standard	64 standard	61
Response Time to Interrupts (μs)	7.2	3.8	6	4	2	1.1	6	11	1.44	2.4
SOFTWARE										
Assembler	2-pass, relocatable, macro	2-pass, relocatable, macro	firmware	2-pass	2-pass, macro	2-pass, macro	2-pass, relocatable	1-pass, conversational	2-pass, relocatable, macro	2-pass, IBM 1800/1130 compatible
Compilers	FORTRAN IV, BASIC	FORTRAN IV, ALGOL	FORTRAN IV	NA	NA	RPG	FORTRAN	NA	Real-time FORTRAN	FORTRAN IV
Real-Time Executive Monitor	yes	yes	yes	yes	NA	hardware	NA	yes	yes	yes
Disc Operating System	yes	yes	yes	yes	yes	yes	NA	NA	yes	yes
PRICES										
Computer with 4K Memory	\$6,200	\$16,500	\$15,650	\$6,000	\$5,900	\$11,000 (10K)	\$11,650 †	\$3,600	\$9,200	\$18,000
Additional 4K Memory	3,500	8,000	6,000	—	3,000	4,950 (10K)	8,150 †	1,800	3,600	4,000
ASR-33 Teletype	1,500	1,500	2,000	1,100	1,250	—	NA	950	950	950
Real-Time Clock	250	500	500	standard	400	optional	480 †	standard	standard	standard
Powerfail Protect	standard	1,000	500	standard	400	standard	optional	300	standard	standard
Automatic Restart	400	1,000	NA	standard	—	standard	optional	standard	standard	standard
Paper Tape Reader	3,900	3,900	2,400	—	2,475	3,800	3,200 †	2,500	2,500	2,500
Paper Tape Punch	—	3,900	2,800	—	1,350	4,500	4,750 †	3,000	3,000	3,000
Magnetic Tape Units	9,950	7,750	9,250	—	3,800	12,000	18,300 †	yes	14,500	14,500
Read-Only Memory	1K/S1,500	NA	standard	256/standard	NA	—	—	yes	yes	yes
OTHER DATA										
Date of First Delivery	4/71	2/70	1/70	6/67	11/70	9/70	2/69	1/68	5/70	7/69
Delivery Time	30 da	—	90 da	30 da	30 da	6-9 mo	4 mo	30 da	30 da	30 da

Code: † F.O.B. Tokyo. Nearest dollar value at press time. — No information supplied NA—Not available

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MANUFACTURER	GRI Computer Corp. Newton, Mass.				Hewlett-Packard Co. Cupertino, Calif.		Honeywell Information Systems Framingham, Mass.			Information Technology, Inc. Sunnyvale, Calif.
MODEL NUMBER	GRI-909/10	GRI-909/20	GRI-909/30	GRI-909/40	2114C	2116C	H316	H316 Ruggedized	H112	4900/5
INQUIRY CARD NO.	331	332	333	334	335	336	337	338	339	340
MEMORY										
Word Length (bits)	16	16	16	16	16	16	16	16	12	8
Min.-Max. Size (words)	1K-32K	1K-32K	4K-32K	4K-32K	4K-16K	8K-32K	4K-32K	4-32K	4K-8K	128-32K
Cycle Time (μ s)	1.76	0.88	0.88	0.88	2.0	1.6	1.6	1.6	1.69	0.975
Memory Parity	no	no	no	no	optional	optional	optional	optional	no	optional
Memory Protection	yes	yes	yes	yes	optional	optional	optional	optional	no	optional
CPU FEATURES										
Instruction Word Length (bits)	16/32	16/32	16/32	16/32	16	16	16	16	12	8/16
Total Hardware Registers	11	11	11	17	2	8	8	8	9	8
Index Registers (no., type)	all memory locations auto-indexable				NA	NA	1, hardware	1, hardware	NA	1, hardware
No. of Address Modes	4	4	4	4	2	2	8	8	2	4
Byte Addressing	no	no	no	no	no	no	half-word	half-word	no	yes
Byte Processing	optional	optional	optional	optional	no	no	half-word	half-word	no	yes
I/O AND CONTROL										
I/O Word Length (bits)	8-16	8-16	8-16	8-16	16	16	16	16	12	8
DMA Channel	standard	standard	standard	standard	optional	optional	optional	optional	optional	standard
Max. Word Transfer Rate	568 kHz	568 kHz	568 kHz	568 kHz	500 kHz	263 kHz	312 kHz	312 kHz	295 kHz	1 MHz
Priority Interrupt Levels	16,256	16,256	16,256	16,256	7-14	16-48	4-48	4-48	1	256
Response Time to Interrupts (μ s)	1.76	1.76	1.76	1.76	varies	varies	3.2	3.2	4.6	10
SOFTWARE										
Assembler	2-pass, compiler-like, user-oriented language				2-pass, relocatable or absolute	2-pass, relocatable or absolute	1-2-pass, relocatable	1-2-pass, relocatable	2-pass relocatable	1-pass, absolute
Compilers	---	---	---	---	FORTRAN, ALGOL, BASIC	FORTRAN, ALGOL, BASIC	FORTRAN IV	FORTRAN IV	NA	NA
Real-Time Executive Monitor	NA	NA	NA	NA	yes	yes	yes	yes	---	NA
Disc Operating System	NA	NA	NA	NA	yes	yes	yes	yes	NA	NA
PRICES										
Computer with 4K Memory	\$4,600 (1K)	\$4,950 (1K)	\$6,690	\$7,790	\$8,500	\$14,000 (8K)	\$8,400	\$14,500	\$5,225	\$ 4,000
Additional 4K Memory	3,240	3,240	3,240	3,240	4,500	8,000 (8K)	3,500	3,500	2,685	1,500
ASR-33 Teletype	1,200	1,200	1,200	1,200	2,000	2,000	1,700	1,700	1,700	800
Real-Time Clock	260	260	260	260	1,250	1,250	500	500	480	1,000
Powerfail Protect	standard	{ 310	{ 310	{ 310	{ 500	{ 500	---	---	365	{ 500
Automatic Restart									295	
Paper Tape Reader					2,100	2,100	3,000	3,000	2,500	2,500
Paper Tape Punch	{ 3,000	{ 3,000	{ 3,000	{ 3,000	4,100	4,100	3,000	3,000	3,000	3,000
Magnetic Tape Units	690	690	690	690	9,500	9,500	5-24,000	5-24,000	---	10,000
Read-Only Memory	4K/\$1,000	4K/\$1,000	4K/\$1,000	4K/\$1,000	NA	NA	---	---	---	1K/\$800
OTHER DATA										
Date of First Delivery	1/70	1/70	1/70	1/70	NA	11/70	6/69	6/70	11/69	10/70
Delivery Time	30-60 da	30-60 da	30-60 da	30-60 da	24 wks	5 wks	45 da	3 mo	30 da	45 da

MANUFACTURER	Information Technology, Inc. Sunnyvale, Calif.		Interdata, Inc. Oceanport, N.J.				International Business Machines Corp. White Plains, N.Y.	Laben, Div. of Montedel Milan, Italy	Lockheed Electronics Co. Los Angeles, Calif.
MODEL NUMBER	4900/10	4900/20	1	3	4	5	System/7	Laben 70	Mac 16
INQUIRY CARD NO.	341	342	344	345	346	347	348	349	350
MEMORY									
Word Length (bits)	16	16/32	8	16	16	16	16	16	16
Min.-Max. Size (words)	4K-32K	4K-32K	2K-16K	4K-32K	4K-32K	4K-32K	2K-16K	4K-32K	4K-64K
Cycle Time (μs)	0.975	0.975	1.0	1.5	1.0	1.0	0.4	1.35	1
Memory Parity	optional	optional	optional	optional	optional	optional	standard	optional	optional
Memory Protection	optional	optional	no	optional	optional	optional	no	standard	optional
CPU FEATURES									
Instruction Word Length (bits)	16/32/48	16/32/48	8/16	16/32	16/32	16/32	16	16	16
Total Hardware Registers	16	32	6	17	33	33	38	10	7
Index Registers (no., type)	6, hardware	12, hardware	8, 192, core	15, core	15, hardware	15, hardware	28	X and B	8-64
No. of Address Modes	4	4	4	1	1	1	---	8 + 6 Ext mode	8
Byte Addressing	yes	yes	yes	yes	yes	yes	no	no	yes
Byte Processing	yes	yes	yes	yes	yes	yes	no	no	no
I/O AND CONTROL									
I/O Word Length (bits)	8/16	8/16	8	8/16	8/16	8/16	16	16	33
DMA Channel	standard	standard	optional	optional	optional	optional	optional	optional	standard
Max. Word Transfer Rate	1 MHz	1 MHz	1M(bytes/sec)	500K(bytes/sec)	500K(bytes/sec)	500K(bytes/sec)	2.5 MHz	700 kHz	800 kHz
Priority Interrupt Levels	256	256	4	256	256	256	4	128	8-64
Response Time to Interrupts (μs)	5	5	4	23	14.8	13.6	0.8	0.9/8	6
SOFTWARE									
Assembler	1-Symbol I, 2-Symbol II, relocatable, macro	1-Symbol I, 2-Symbol II, relocatable, macro	2-pass, absolute	1-1/2-pass, relocatable	1-1/2-pass, relocatable	1-1/2-pass, relocatable	1-pass, reusable, macro	2-pass, absolute relocatable macro	2-pass, relocatable, macro
Compilers	FORTRAN IV	FORTRAN IV	NA	NA	FORTRAN IV	FORTRAN IV	NA	FORTRAN IV, BASIC	FORTRAN IV
Real-Time Executive Monitor	yes	yes	NA	NA	NA	yes	NA	NA	yes
Disc Operating System	yes	yes	NA	NA	NA	NA	NA	NA	NA
PRICES									
Computer with 4K Memory	\$ 9,950	\$19,950 (8K)	\$5,850	\$8,900	\$10,900	\$15,600	\$16,795	\$14,500	\$11,200
Additional 4K Memory	4,000	4,000	2,400	4,800	4,800	4,800	7,350	5,600	3,950
ASR-33 Teletype	800	800	1,200	1,700	1,700	standard	2,240	1,900	1,600
Real-Time Clock	1,000	1,000	standard	800	800	800	standard	1,100	standard
Powerfail Protect	{ 500	{ 500	{ 200	400	400	400	standard	{ 1,100	standard
Automatic Restart				200	200	200	standard		standard
Paper Tape Reader	2,500	2,500	2,500	2,500	2,500	2,500	IBM 5028	2,550	1,200
Paper Tape Punch	3,000	3,000	3,800	3,800	3,800	3,800	Oper. Station	4,150	1,850
Magnetic Tape Units	10,000	10,000	2,500	9,400	9,400	9,400	NA	10,000	7,000
Read-Only Memory	1K/\$1,500	1K/\$1,500	2K/\$1,500	2K/\$1,500	1.5K/\$1,500	1.5K/\$1,500	NA	in CPU	NA
OTHER DATA									
Date of First Delivery	10/65	10/69	11/70	5/67	8/68	8/70	11/71	1/70	3/69
Delivery Time	60 da	90 da	90-120 da	60-90 da	60-90 da	60-90 da	---	2-3 mo	---

Code: ---No information supplied NA—Not available

MINICOMPUTERS AND MANUFACTURERS

MANUFACTURER	Lockheed Electronics Co. Los Angeles, Calif.	Microdata Corp. Santa Ana, Calif.	Modular Computer Systems Ft. Lauderdale, Fla.		Motorola Instrumentation and Control, Inc. Phoenix, Ariz.	Multidata, Inc. Westminster, Calif.	Nuclear Data, Inc. Palatine, Ill.			
MODEL NUMBER	Mac Jr.	M400	800	810	812	Modcomp II	Modcomp III	MDP-1000	A	ND 812
INQUIRY CARD NO.	351	352	353	354	355	356	357	358	359	360
MEMORY										
Word Length (bits)	16	8	8	8	8	16	16	8	16	12
Min.—Max. Size (words)	4K-8K	1K-65K	8	32	32	4K-16K	4K-64K	4K-16K	32K-65K	4K-16K
Cycle Time (μs)	1	1.6	0.22	1.1	1.1	0.8	0.8	2.16	0.88	2
Memory Parity	no	no	optional	optional	optional	standard	standard	no	optional	no
Memory Protection	no	no	no	no	no	no	optional	no	standard	no
CPU FEATURES										
Instruction Word Length (bits)	16	8/16	16	8/16/24	8/16/24	16	16	12	16	12/24
Total Hardware Registers	7	8	6 & 16 files	6	6	7	15	8	8	6
Index Registers (no., type)	4-16	1	1	1	1	7, hardware	7, hardware	3, hardware	2	2, core
No. of Address Modes	8	2	1	8	8	7	7	4	5	3
Byte Addressing	yes	yes	NA	yes	yes	yes	yes	yes	yes	no
Byte Processing	no	yes	yes	yes	yes	yes	yes	yes	no	no
I/O AND CONTROL										
I/O Word Length (bits)	33	8	8	8	8	16	16	8/12	16	12/24
DMA Channel	optional	optional	optional	optional	optional	optional	optional	NA	optional	optional
Max. Word Transfer Rate	800 kHz	6.25 kHz	909 kHz	909 kHz	909 kHz	400 kHz	1.25 MHz	48 kHz	1 MHz	500 kHz
Priority Interrupt Levels	4-16	32	64	64	64	18	32	1-128	384	4
Response Time to Interrupts (μs)	6	7.6	91	91	36	2.4	2.4	19.4	6	2-6
SOFTWARE										
Assembler	2-pass, relocatable, macro	2-pass, auto lit, pooling macro	NA	2-pass	2-pass	2-pass, cross relocatable, macro	2-pass, cross relocatable, macro	2-pass, nonrelocatable, machine language	1-pass, relocatable	2-pass, limited macro
Compilers	FORTRAN IV	NA	NA	NA	NA	FORTRAN IV	FORTRAN IV	NA	FORTRAN IV, BASIC	3
Real-Time Executive Monitor	yes	NA	NA	NA	NA	yes	yes	yes	NA	NA
Disc Operating System	NA	NA	NA	yes	yes	yes	yes	NA	yes	yes
PRICES										
Computer with 4K Memory	\$7,900	\$3,750	\$3,860	\$5,337	\$8,930	\$ 9,800	\$13,500	\$6,900	\$18,955 (32K)	\$7,300
Additional 4K Memory	3,100	1,450	1,743	1,743	1,725	4,000	4,000	3,000	7,500 (32K)	2,650
ASR-33 Teletype	1,600	---	1,500	1,500	1,500	1,500	1,500	1,400	standard	1,450
Real-Time Clock	450	375	332	332	328	500	500	103	800/pair	750
Powerfail Protect		500	291	291	287	standard	standard	1,000	1,500	included
Automatic Restart						standard	standard			250
Paper Tape Reader	1,200	---	NA	NA	NA	2,000	2,000	1,500	7,990	1,350
Paper Tape Punch	1,850	---	NA	NA	NA	3,000	3,000	1,100		1,950
Magnetic Tape Units	7,000	---	NA	NA	NA	10,000	10,000	7,500	11,900	9,950
Read-Only Memory	NA	---	256/\$581	256/\$581	256/\$581	256-2500	256-2500	NA	NA	NA
OTHER DATA										
Date of First Delivery	10/70	10/70	1/69	1/69	11/69	7/71	12/70	6/68	8/70	11/70
Delivery Time	---	30 da	30 da	30 da	30 da	60 da	60 da	30 da	60 da	30-60 da

MANUFACTURER	Raytheon Computer Santa Ana, Calif.			Redcor Corp. Woodland Hills, Calif.	ROLM Corp. Cupertino, Calif.	Selenia S.p.A. Rome, Italy			Spiras Systems, Inc. Waltham, Mass.	Systems Engineering Laboratories, Inc. Ft. Lauderdale, Fla.
MODEL NUMBER	703	704	706	RC 70	1601	GP-16R	GP-16	GP-16S	SP-65	Systems 72
INQUIRY CARD NO.	361	362	363	364	365	366	367	368	369	370
MEMORY										
Word Length (bits)	16	16	16	16	16	16	16	16	16	16
Min.—Max. Size (words)	4K-32K	4K-32K	4K-32K	4K-32K	4K-32K	4K-8K	4K-32K	4K-32K	4K-65K	32K-65K
Cycle Time (μs)	1.75	1.0	0.9	0.86	2.6	2	2	1	1.8	0.88
Memory Parity	no	optional	optional	standard	no	no	no	standard	no	optional
Memory Protection	no	no	optional	standard	no	no	no	standard	—	standard
CPU FEATURES										
Instruction Word Length (bits)	16	16	16	16/32	16	16	16	16/32	16/32	16
Total Hardware Registers	6	5	5	9	7	7	7	16	7	8
Index Registers (no., type)	1	1	1	1, hardware	2, hardware	NA	NA	4	2	2
No. of Address Modes	3	3	3	4	2	4	4	7	16	5
Byte Addressing	yes	yes	yes	no	no	no	no	no	no	yes
Byte Processing	yes	yes	yes	no	no	no	no	no	no	yes
I/O AND CONTROL										
I/O Word Length (bits)	16	16	16	16	16	16	16	16	16	16
DMA Channel	optional	optional	optional	optional	standard	optional	optional	optional	standard	optional
Max. Word Transfer Rate	0.571 MHz	1 MHz	1.11 MHz	1.1 MHz	280 kHz	500 kHz	500 kHz	500 kHz	500 kHz	1 MHz
Priority Interrupt Levels	16	16	16	0-32	16	64	64	64	1-8	384
Response Time to Interrupts (μs)	5.25	3.0	2.7	8	5.2	6	6	6	9	6
SOFTWARE										
Assembler	1-1/2-pass, macro	1-1/2-pass, macro	1-1/2-pass, macro	1-pass	2-pass, relocatable	2-pass, relocatable	2-pass, relocatable	2-pass, macro	2-pass, macro	1-pass, relocatable
Compilers	FORTRAN IV, Conv FORTRAN	FORTRAN IV, Conv FORTRAN	FORTRAN IV, Conv FORTRAN	FORTRAN IV	BASIC FORTRAN IV, ALGOL 60	FORTRAN II	BASIC	ALGOL	FORTRAN IV	FORTRAN IV, BASIC
Real-Time Executive Monitor	2	2	2	yes	yes	yes	yes	yes	NA	yes
Disc Operating System	yes	yes	yes	yes	yes	NA	NA	yes	yes	yes
PRICES										
Computer with 4K Memory	\$12,750	\$ 9,750	\$19,000	\$14,900	\$18,900	\$10,584	\$13,680	—	\$9,800	\$18,995 (32K)
Additional 4K Memory	6,500	4,000	9,000	6,000	7,940	4,608	4,608	—	3,400	5,990
ASR-33 Teletype	included	1,200	included	1,800	1,250	1,816	1,816	\$1,816	1,250	included
Real-Time Clock	500	500	500	standard	800	453	453	453	600	800/pair
Powerfail Protect	{ 500	{ 500	{ 500	standard	optional	standard	standard	standard	{ 450	1,500
Automatic Restart				standard	optional	NA	NA	standard		included
Paper Tape Reader	3,300	3,300	3,300	3,000	800	2,053	2,053	2,053	1,600	{ 7,990
Paper Tape Punch	4,200	4,200	4,200	—	750	2,485	2,485	2,485	3,950	
Magnetic Tape Units	10,500	10,500	10,500	11-28,000	11,500	9,093	9,093	9,093	8,395	8,000
Read-Only Memory	NA	NA	NA	NA	256/\$725	1K	NA	NA	—	NA
OTHER DATA										
Date of First Delivery	10/67	4/70	5/69	7/68	3/70	1/70	1/70	3/71	6/69	6/70
Delivery Time	45 da	45 da	45 da	30 da	90 da	3 mo	3 mo	—	30 da	60 da

Code: —No information supplied NA—Not available

MINICOMPUTERS AND MANUFACTURERS

MANUFACTURER	Systems Engineering Laboratories, Inc. Ft. Lauderdale, Fla.	Tempo Computers, Inc. Anaheim, Calif.	Texas Instruments, Inc. Houston, Texas		Unicom, Inc. Fairfield, N.J.				Unicom, Inc. Northridge, Calif.	
MODEL NUMBER	Systems 82	Tempo I	TI 980	TI 960	CP-8A	CP-8B	CP-8C	CP-8D	Comp-16	Comp-18
INQUIRY CARD NO.	371	372	373	374	375	376	377	378	379	380
MEMORY										
Word Length (bits)	16	16	16	16	8	8	8	8	16	18
Min.—Max. Size (words)	4K-16K	4K-65K	4K-65K	4K-65K	8	8	8	8	4K-65K	4K-263K
Cycle Time (μs)	0.9	0.9	1.0	1.0	1.75	1.75	1.75	1.75	0.888	0.888
Memory Parity	no	optional	standard	standard	---	---	---	---	NA	NA
Memory Protection	no	optional	no	standard	standard	standard	standard	standard	optional	optional
CPU FEATURES										
Instruction Word Length (bits)	16	16	16/32	32	variable	variable	variable	variable	16	18
Total Hardware Registers	4	25	8	16	16	16	16	16	---	---
Index Registers (no., type)	3	16	1, live	16, virtual	1	1	1	1	6, core	6, core
No. of Address Modes	3	15	11	19	4	4	4	4	4	4
Byte Addressing	yes	I/O only	no	yes	yes	yes	yes	yes	no	no
Byte Processing	yes	yes	no	yes	yes	yes	yes	yes	no	no
I/O AND CONTROL										
I/O Word Length (bits)	16	16	16	1-16	8	8	8	8	16	18
DMA Channel	optional	optional	standard	standard	optional	optional	optional	optional	standard	standard
Max. Word Transfer Rate	1 MHz	700 kHz	1 MHz	1 MHz	300 kHz	300 kHz	300 kHz	300 kHz	1.1 MHz	1.1 MHz
Priority Interrupt Levels	8	16	3	3	4	4	4	4	64	64
Response Time to Interrupts (μs)	1.8	1.5	5	17	3.5	3.5	3.5	3.5	4.25	4.25
SOFTWARE										
Assembler	2-pass, relocatable	1-2-pass, relocatable, macro, auto address	2-pass, relocatable	2-pass, relocatable	---	---	2-pass, relocatable	2-pass, relocatable	1-2-pass, relocatable, macro	1-2-pass, relocatable, macro
Compilers	FORTRAN IV	FORTRAN IV	FORTRAN	NA	---	---	---	---	BASIC	BASIC
Real-Time Executive Monitor	NA	NA	yes	yes	---	---	---	---	yes	yes
Disc Operating System	NA	NA	yes	yes	---	---	yes	yes	yes	yes
PRICES										
Computer with 4K Memory	---	\$13,800	\$16,700	\$14,500	\$3,120 †	\$3,420 †	\$4,850	\$6,485	\$9,800	\$10,700
Additional 4K Memory	---	5,900	4,500	4,500	---	---	1,900	1,900	3,700	3,700
ASR-33 Teletype	---	1,800	1,900	1,900	NA	NA	900	900	1,375	1,375
Real-Time Clock	---	500	NA	optional	optional	optional	optional	optional	750	750
Powerfail Protect	---	1,000	optional	optional	---	---	yes	yes	standard	standard
Automatic Restart	---	5,700*	optional	optional	---	---	optional	optional	100	100
Paper Tape Reader	---	---	3,250	2,800	---	---	---	---	1,450	1,450
Paper Tape Punch	---	---	3,450	3,000	---	---	---	---	2,650	2,650
Magnetic Tape Units	---	11,500*	18,240	18,180	---	---	---	---	4,700	4,700
Read-Only Memory	---	NA	256	256	---	---	1K/\$600	1K/\$600	512/\$1,450	512/\$1,450
OTHER DATA										
Date of First Delivery	---	12/69	5/68	6/70	4/70	4/70	4/70	8/70	8/70	8/70
Delivery Time	---	90 da	60 da	60 da	30 da	30 da	30 da	30 da	45-60 da	45-60 da

MANUFACTURER	Varian Data Machines Irvine, Calif.				Varisystems Corp. Plainview, N.Y.	Westinghouse Electric Corp. Pittsburgh, Pa. Orlando, Fla.		Xerox Data Systems El Segundo, Calif.		
MODEL NUMBER	520/i	620/i	620/f	620/L	PAC-16	Prodac 2000	2500	CF16	CF16A	CE16
INQUIRY CARD NO.	381	382	383	384	385	386	387	388	389	390
MEMORY										
Word Length (bits)	8	16/18	16	16	16	16	16	16	16	16
Min.-Max. Size (words)	4K-32K	4K-32K	4K-32K	4K-32K	512-16K	4K-65K	4K-65K	4K-32K	4K-32K	4K-32K
Cycle Time (μs)	1.5	1.8	0.75	1.8	1.75	3	0.750	2.66	1.6	8.0
Memory Parity	optional	optional	optional	optional	optional	optional	optional	no	no	no
Memory Protection	optional	optional	optional	optional	no	optional	optional	optional	optional	no
CPU FEATURES										
Instruction Word Length (bits)	8/16/24	16/32	16/32	16	16	16	16	16	16	16
Total Hardware Registers	16	9	9	9	1	21	16	7	7	7
Index Registers (no., type)	2	2	2	2	optional	2	2 hardware	1 hardware	1 hardware	1 hardware
No. of Address Modes	5	7	8	7	1 std., 2 opt.	8	12	8	8	8
Byte Addressing	yes	no	no	no	yes	no	no	no	no	no
Byte Processing	yes	no	no	no	yes	no	no	yes	yes	yes
I/O AND CONTROL										
I/O Word Length (bits)	8/16	16/18	16	16	8/16	14	16	16	16	16
DMA Channel	optional	standard	standard	standard	optional	optional	optional	optional	optional	optional
Max. Word Transfer Rate	660 kHz	202 kHz	1.3 MHz	202 kHz	200 kHz	300 kHz	430 kHz	250 kHz	500 kHz	125 kHz
Priority Interrupt Levels	11	64	64	64	2	64	64	3-64	3-64	3-64
Response Time to Interrupts (μs)	1.5	0.9	0.9	0.9	11	8	9.075	2.66	1.6	8.0
SOFTWARE										
Assembler	2-/3-pass, absolute, relocatable	2-/3-pass, relocatable	2-/3-pass, relocatable	2-/3-pass, relocatable	2-pass, basic	2-pass, relocatable	2-pass, relocatable, macro	1-/2-/3-pass, relocatable	1-/2-/3-pass, relocatable	1-/2-/3-pass, relocatable
Compilers	NA	FORTRAN IV, BASIC, RPG IV	FORTRAN IV, BASIC, RPG IV	FORTRAN IV, BASIC, RPG	NA	FORTRAN IV	FORTRAN IV, BASIC	FORTRAN, BASIC	FORTRAN, BASIC	FORTRAN, BASIC
Real-Time Executive Monitor	NA	NA	NA	NA	NA	yes	yes	NA	NA	NA
Disc Operating System	NA	yes	yes	yes	yes	NA	yes	NA	NA	NA
PRICES										
Computer with 4K Memory	\$6,000	\$9,950	\$10,500	\$5,400	\$3,850	\$10,425	\$9,950	\$ 7,990	\$ 8,490	\$ 9,980
Additional 4K Memory	2,000	4,500	2,500	2,300	950	5,400	4,500	4,000	4,000	3,900
ASR-33 Teletype	1,400	1,800	1,800	1,800	1,000	optional	optional	1,400	1,400	1,400
Real-Time Clock	500	300	500	300	1,000	standard	optional			
Powerfail Protect					50	standard	optional	{ 750	{ 750	{ 750
Automatic Restart	{ 400	{ 300	{ 500	{ 300	NA	optional	optional			
Paper Tape Reader	2,300	2,300	2,300	2,300	500	optional	optional	1,000	1,000	1,000
Paper Tape Punch	3,000	3,000	3,000	3,000	650	optional	optional	{ 1,500	{ 1,500	{ 1,500
Magnetic Tape Units	8,900	8,900	8,900	8,900	optional	NA	optional			
Read-Only Memory	1K/\$1,000	NA	1K/\$1,500 4K/\$2,500	NA	NA	NA	optional	10,000 available	10,000 ---	10,000 available
OTHER DATA										
Date of First Delivery	---	---	---	6/71	8/69	7/69	4/71	10/69	11/70	3/69
Delivery Time	---	---	---	---	30 da	---	90 da	30 da	90 da	30 da

Code: *With Controller(s) † Read-only memory computer ---No information supplied NA—Not available