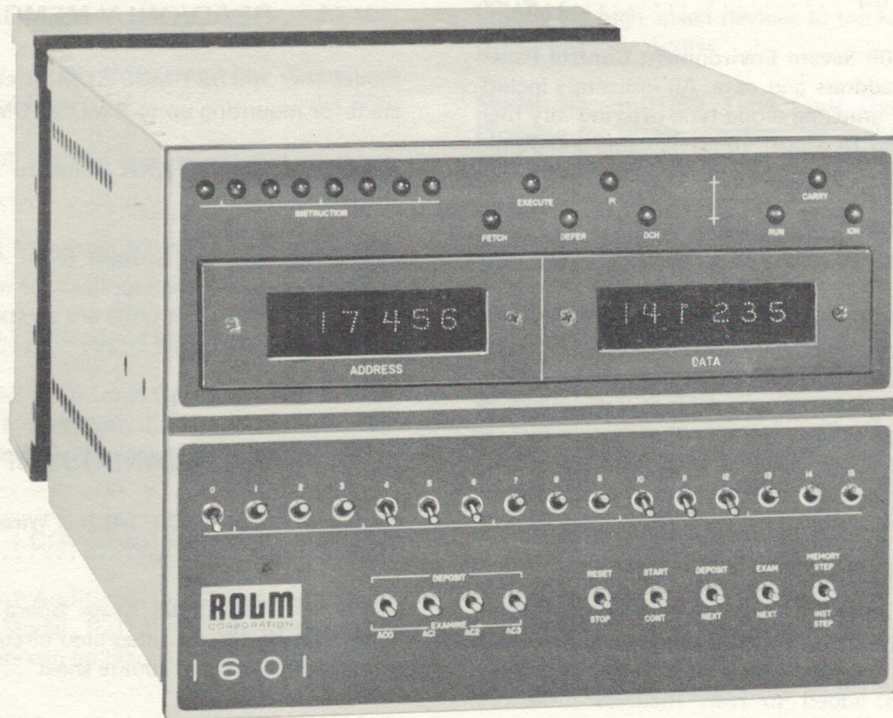


## PRICE LIST

Prices Effective March 1, 1971

JOE De SHAYES  
MEASUREMENT INSTRUMENTS INC.  
15 POTTER STREET  
HADDONFIELD, N. J. 08033  
609-428-6772



Model 1601 RUGGEDNOVA and Options



# Model 1601 RUGGEDNOVA and Options

**Model No. 1601/00 Ruggednova Central Processor** with 4 hardware accumulators, input/output system with programmed data transfer to up to 62 directly addressable I/O devices, 16 level programmed priority interrupt, direct memory data channel, ATR box with power supplies and 9 additional circuit module slots and power monitor and auto-restart .....\$10,550.

## CPU OPTIONS

**Model No. 1601/02 Extended Arithmetic Option.** Provides hardware multiply-divide in 9.7  $\mu$ sec and n-bit shift in 4.7  $\mu$ sec ( $n=1, \dots, 16$ ) .....\$3,500.

**Model No. 1601/03 Real Time Clock** Provides 10, 60, 100, 1000 Hz interrupts or timing from external source ..... \$800.

**Model No. 1601/04 Standard Control Panel.** Attaches to Model 1601 via cable and 85-pin connector (specify length — max. 10 ft.) ..... \$750.

**Model No. 1601/05 Severe Environment Control Panel.** Octal readout of address and data. All indicators including octal are light emitting diode type offering very high reliability. Attaches to Model 1601 via cable and 85-pin connector (specify length — max. 10 ft.) .....\$2,250.

**Model No. 1601/06 60 Hz Adaptor.** Provides for Operation of Model 1601 from 47-63 Hz primary power \$600.

**Model No. 1601/07-01 Expansion Chassis.** Provides additional power supplies and slots for up to 11 additional I/O circuit modules. Space is available on the front panel for up to ten 55-pin connectors. Four memory modules may be added to rear. Includes in-factory wiring I/O Bus to front panel of expansion chassis and CPU and connecting cable (specify length — max. 10 ft.) ..... \$4,000.

**Model No. 1601/07-02 Expansion Chassis.** Provides additional power supplies and slots for up to 8 additional I/O circuit modules. Space is available on the front panel for up to five 55-pin connectors. Four memory modules may be added to rear. Includes in-factory wiring I/O Bus to front panel of expansion chassis and CPU and connecting cable (specify length — max. 10 ft.) ..... \$3,500.

**Model No. 1601/07-03 Memory Expansion Chassis.** Provides additional power supplies for adding up to 6 additional memory modules .....\$3,000.

**Model No. 1601/08 19-inch RETMA Rack Mounting.** Provides for mounting basic box or extender chassis and up to 12K of core memory in 8 $\frac{3}{4}$  inches of panel space. Provision is made for a 1601/05 control panel ... \$600.

**Model No. 1601/09-1. Interrupt Branching and Nesting Controller.** Provides control for up to 8 IBN channel selectors ..... \$1,600.

**Model No. 1601/09-2. Interrupt Branching and Nesting Channel Selector.** Provides 8 levels of interrupt for IBN ..... \$1,200.

## READ/WRITE MEMORIES

**Model No. 1601/11 4096 16-bit Word** (8192 bytes) of rugged wide temperature core memory ..... \$7,940.

**Model No. 1601/12 4096 16-bit Word** (8192 bytes) of rugged core memory—standard temperature 0°C to +50°C ..... \$7,250.

## READ/ONLY MEMORIES

**Model No. 1601/21 MOS-ROM Circuit Module** — sufficient for mounting up to 8 MOS-ROM increments \$1,000.

**Model No. 1601/22-XXX Standard ROM** — 256 16-bit Word Increments ..... \$600.

**Model No. 1601/23 Custom ROM** — 256 16-bit Word Increments. Customer supplies tape or table. First unit is custom — succeeding units are at standard prices, minimum quantity 10 units .....\$3,000.

## MISCELLANEOUS OPTIONS

**Model No. 1601/99-00. I/O Bus Wired to External Connector** .....\$250.

**Model No. 1601/99-01 Kluge Board** — Includes etched hole patterns for 42 integrated circuits, laminated heat sinks, connectors and cookie sheet ..... \$350.

**Model No. 1601/99-02 Custom PC Board** — Customer supplies art work — includes heat sink, connectors, cookie sheet ..... \$750.

**Model No. 1601/99-03 Shielded Control Panel Cable Option.** Provides shielded rather than unshielded cable for Model 1601/04 or 1601/05 ..... \$100.

**Model No. 1601/99-04 Memory Expansion Cable.** Wiring of CPU and Expansion Chassis for Model 1601/07-01 or Model 1601/07-02 when additional memory is added to the expansion chassis ..... \$350.



## INPUT/OUTPUT OPTIONS

Model No. 1601/40 16-Bit Input Buffer and 16-Bit Output Buffer, logic levels .....\$1,100.

Model No. 1601/41 3 x 16 Bit Parallel Output Buffer, logic levels .....\$1,200.

Model No. 1601/42 3 x 16 bits unbuffered parallel input, logic levels .....\$1,100.

Model No. 1601/43 16 bit parallel output buffer, with line drivers .....\$1,000.

Model No. 1601/44 16 bit parallel input buffer, with line receivers .....\$1,000.

Model No. 1601/45 Serial I/O double buffer, logic and line levels .....\$1,000.

Model No. 1601/46 16 bit parallel output buffer, contact closures .....\$1,100.

Model No. 1601/47 I/O bus differential line drivers and receivers, CPU end of line .....\$2,600.

Model No. 1601/48 I/O bus line drivers and receivers, remote end of line .....\$2,600.

Model No. 1601/49 16 system interrupts, wired priority, individual arming .....\$1,250.

Model No. 1601/50-1 D/A converter, 8-bit ....\$1,100.

Model No. 1601/50-2 Additional D/A converter on same circuit module as Model 1601/50-1. Up to two additional D/A converters can be placed on the same circuit module .....\$750.

Model No. 1601/51-1 D/A converter, 10-bit ....\$1,250.

Model No. 1601/51-2 Additional D/A converter on same circuit module as Model 1601/51-1. Up to two additional D/A converters can be placed on the same circuit module .....\$800.

Model No. 1601/52-1 D/A converter, 12-bit ....\$1,450.

Model No. 1601/52-2 Additional D/A converter on same circuit module as Model 1601/52-1. Up to two additional D/A converters can be placed on the same circuit module .....\$850.

Model No. 1601/55 A/D converter, 8-bit ....\$3,500.

Model No. 1601/56 A/D converter, 10-bit ....\$4,000.

Model No. 1601/57 A/D converter, 12-bit ....\$4,500.

Model No. 1601/60 Analog multiplexer, 16 channels random access or cyclic .....\$1,250.

Model No. 1601/61 Sample and hold installed on Model No. 1601/60 .....\$400.

Model No. 1601/62 Modem Interface. Operates with synchronous modems equivalent to Bell 201A, 1200 or 2400 baud, full duplex .....\$1,600.

Model No. 1601/63-1 I/O Bus Repeater. Increases fan-out of I/O bus. Drives terminated line plus 10 TTL loads or unterminated line plus 20 TTL loads. Installs in CPU chassis .....\$1,100.

Model No. 1601/63-2 I/O Bus Repeater. Same as 1601/63-1 except installs in expansion chassis ..\$1,100.

Model No. 1601/64 Data Channel Controller — for interfacing high speed devices to the Model 1601 via the Direct Memory Access .....\$1,600.

Model No. 1601/69 Time Code Generator Interface. Provides for direct interface for a standard IRIG serial TCG format .....\$1,200.

Model No. 1601/70 Two independent serial outputs with line drivers .....\$1,600.

## RUGGEDNOVA PERIPHERALS

### Model No. 1601/31 Teletype Options (Commercial Environment)

31 Teletype Input/Output Interface for teletype Models 33-KSR, 33-ASR, 35-KSR, and 35-ASR. Requires 1 circuit module .....\$1,000.

31-A Teletype Model ASR-33 .....\$1,250.

31-B Teletype Model KSR-33 .....\$975.

31-C Teletype Heavy Duty Model KSR-35 ...\$2,525.

31-D Teletype Heavy Duty Model ASR-35 ...\$3,700.

### Model No. 1601/32-XXXX Paper Tape Equipment (Commercial Environment)

32-4007 I/O Circuit Module .....\$300.

32-4011 Paper Tape Reader Control for Type 4011B Reader .....\$800.

32-4011B High Speed Paper Tape Reader, 300 cps, fan-fold, 8-channel tape, rack mountable ...\$1,800.

RUGGEDNOVA PERIPHERALS  
continued on back



**RUGGEDNOVA PERIPHERALS (continued)**

**(Model No. 1601/32-XXXX Continued)**

- 32-4012 Paper Tape Punch Control for Type 4012A, paper tape punch ..... \$750.
- 32-4012A High Speed Paper Tape Punch, 63 cps (Teletype BRPE 11) for fan-fold, rack mountable (14" high) with slides .....\$1,500.
- 32-4013 Remote-Operation Modification to Punch Model 4012A, allows power turn-on, turn-off under program control ..... \$250.

**Model No. 1601/33 Card Equipment (Commercial Environment)**

- 33 Card Reader Control for Type 4016A card reader ..... \$1,250.
- 33 Medium-Speed Card Reader 225 or 400 cpm ..... \$3,000.

**Model No. 1601/34-XXXX Disc Equipment (Commercial Environment)**

- 34-4019 Disc Control for All Series 4019 discs. Data transfers through the data channel facility. May be used to control up to 8 Type 4019 disc units. \$4,500.
- 34-4019B 64K (16-bit words), fixed head disc. Rack mountable ..... \$4,750.
- 34-4019C 128K (16-bit words), fixed head disc. Rack mountable ..... \$6,250.

**Model No. 1601/35-XXXX Incremental Plotters (Commercial Environment)**

- 35-4017 Incremental Plotter Control for all series 4017 plotters. 300 increments per second ...\$2,250.
- 35-4017A Incremental Plotter (Drum) 12" paper, 0.01", 0.005" or 0.1 mm step size, 300 increments/second (Calcomp Model 565) .....\$6,850.
- 35-4017B Rack Mountable Version of 4017A \$7,580.

- 35-4017C Incremental Plotter (Z-fold paper) 11" paper, 0.01", 0.005", 0.25 mm, or 0.1 mm step size (300 steps/second) (Houston Instrument Model DP-1) ..... \$5,000.

**Model No. 1601/36 Magnetic Tape Equipment**

Model No. 1601/36 Magnetic Tape Controller. Controls up to 8 synchronous read/write 7- or 9-track IBM compatible tape transports, 24, 45, 75, or 150 ips at 556 or 800 bpi (7- or 9-track at single speed per controller) ..... \$5,000.

Model No. 1601/36A Magnetic Tape Transport. 9-track, 24 ips, (Ampex TMZ commercial environment) ..... \$7,000.

Model No. 1601/36B Magnetic Tape Transport. 9-track 45 ips (Ampex TM-8 commercial environment) ..... \$9,000.

Model No. 1601/36C Mil Spec (Mil-E-5400 Class 1) ATM-13, 9-track, 75 ips, industry compatible \$33,000.

Model No. 1601/36D Same as 1601/36C except 7-track, 75 ips, industry compatible ..... \$31,000.

**Model No. 1601/37 Magnetic Tape Cassette (Commercial Environment)**

Model No. 1601/37 Magnetic Tape Cassette I/O Interface ..... \$2,000.

Model No. 1601/37A Dicom 3-deck cassette Model 344 ..... \$7,000.

**Model No. 1601/39 Line Printers**

Model No. 1601/39, line printer control for Model 1601/39A and 1601/39B line printers ..... \$2,000.

Model No. 1601/39A, line printers, 356 lines per minute, 80 columns, 64 character ASCII (Data Products, Commercial environment) ..... \$11,500.

Model No. 1601/39B, Line printer, 356 lines per minute, 80 columns, 64 character ASCII (Data Products, Model 2910, military environment) \$24,000.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

For further information write or call:



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