W
herein it becomes clear that Raytheon Computer continues to create new inventions such as integrated circuit digital modules and marvelous improvements in the already remarkable 520 Computer System which will astound and delight you and which will make your journey to the Fall Joint Computer Conference in the City of Hope enrich your life while it impoverishes your purse. Booths 235-308 should certainly be your goal; early, frequent and alert attendance is recommended.
We've just added more speed, software and peripherals to the Raytheon 520...your next real-time systems computer.

1. ONE MICROSECOND MAIN MEMORY
   New high-speed working storage improves the already impressive operation times of the 520. Data acquisition/reduction systems will gain from increased throughput and availability of this high-speed main memory for buffering of real-time input/output.

2. KEYBOARD-DISPLAY STATION
   This new low-cost keyboard CRT display allows high-speed output of test data, system status information, reference tables or text, program lists, register or memory contents, etc. Up to 1040 characters may be displayed on the 6¼" x 8½" viewing surface of the cathode ray tube. Instant erasure by character, line, or message is possible. Online program debugging can be faster and easier. Use of the keyboard-display station for test direction and quick-look or remote inquiry/display is suggested.

3. DISK PACK
   Fast random access mass storage for bulk data or program storage. Capacity approximately 3 million characters; transfer rate 74,500 characters per second. This new drive reads and writes on IBM-compatible disk packs.

4. ANALOG INTERFACE UNITS
   Real-time analog data acquisition with standard, low-cost expandable interface. Analog units include the Multivertex®, with up to 96 channels of integrated circuit multiplexing, a sample-and-hold amplifier and an A-D converter in a 5¼" drawer. Typical over-all accuracy of 0.02%, 50 nanosecond aperture time and conversion rates from 30 KC (15 bits) to 50 KC (12 bits) are standard. Digital-to-analog conversion at high precision and speed are also available.

5. TEN-KEY STATION
   A small, 10-key keyboard provides convenient, fast, fingertip data entry as well as control of computer operations. Offered as control panel accessory.

6. REAL-TIME FORTRAN IV
   Raytheon 520 FORTRAN is the ASA standard FORTRAN with real-time capability. Programmers and system engineers are provided direct access to 520 interrupt facilities and the real-time environment the computer controls without loss of compatibility at the FORTRAN IV language level.

   These improvements reflect our continuing program to increase the 520's real-time system capabilities. They are available to users of currently-installed and future 520's. Write for details. Ask for Data File C-117J.

Raytheon Computer
2700 South Fairview St.
Santa Ana, Calif 92704
Raytheon
WATCH 520 HARDWARE AND SOFTWARE PERFORM AT FJCC
Integrated circuit digital modules with the highest guaranteed noise rejection: 1.5 volts on clock lines, 30 volts on data lines.

And that's not just a lot of noise from Raytheon Computer.

Why buy integrated circuit modules with inadequate protection against noise? Now, Raytheon Computer offers IC digital modules that are virtually impervious to system noise. These new ICs give you 1.5 volts guaranteed rejection on clock lines, 30 volts on data lines. And buffering provides 3 volt rejection on all outputs.

The new IC modules operate at 200KC and are compatible with the more than 100 existing Raytheon Computer discrete component digital modules for 200KC, 1MC, 5MC and 20MC frequencies. This means you can buy our lower-priced 200KC IC modules and not give up high frequency capability.

Raytheon IC modules are on the same compact 3¾ inch x 4¼ inch 35-pin boards as the discrete units and have compatible logic levels and power requirements. IC flatpacks are mounted with parallel gap soldering resulting in smaller, stronger joints which make encapsulation unnecessary. Logic density is as high as 24 flip-flops per board.

Write today for additional information. Ask for Data File M-115B. Raytheon Computer, 2700 South Fairview Street, Santa Ana, California.

THESE NINE CIRCUITS AVAILABLE NOW

IDC1: Decade counter with one digit decoder and 10 line output. IFP1: Flip-flop 4 circuits universal. IFP2: Flip-flop, 12 circuits, buffer storage, parallel in, parallel out. ISR1: Shift Register, 8 bit and 4 bit, Serial in, Serial or Parallel out, T & F out of each FF. ISR2: Shift Register, 16 bit, Parallel or Serial in, Serial out, Parallel out for last 8 bits. ISR3: Shift Register, two 4 bit, Serial or Parallel in, Serial or Parallel out, T & F out of each FF. ISR4: Shift Register, two 14 bit, Reg. A Serial or Parallel in, Serial out, Reg. B Serial in or Parallel transfer from Reg. A, Serial out. ISR5: Shift Register, two 12 bit, Reg. A Serial or Parallel in, Serial out, Reg. B Serial in or Parallel transfer from Reg. A, Serial out. IUC1: Universal Counter, 2 decimal digits or two 4 bit binary counters, parallel preset input.
and maybe it's the one you're going to miss. If that's the case, we have plenty of fresh, up-to-date information on the 520 System and other Raytheon Computer products. Ready to go. Just check the appropriate boxes for the product data you'd like to receive. We'll send it by return mail.

□ I would like more information about:
   □ 520 System
   □ Triplex II Hybrid Computing System
   □ 250 Computer
   □ Germanium 200K, 1MC and 5MC Digital Circuit Modules
   □ Silicon 1MC Digital Circuit Modules
   □ Module Breadboard Kit
   □ A-D Converters
   □ Multivertors
   □ Sample and Hold Units
   □ BIAQ Memory Products
   □ I would like to see a representative,
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