

PX-1-420

ENIAC TIMING CHART

| OPERATION  | TIMING  |                |                |
|--|---|----------------|----------------|
|  | Seconds   | Micro-seconds  | Addition Times |
| ADDITION, SUBTRACTION, OR TRANSFER<br>Including transfer from constant transmitter | $\frac{1}{5000}$  | 200            | 1              |
| Transfer repeated "n" times in the accumulator<br>( n = 1 to 9 )                   | $\left(\frac{1}{5000}\right) n$                               | 200 n          | n              |
| MULTIPLICATION<br>By "n" digit multiplier<br>( n = 2 to 10 )                       | $\left(\frac{1}{1250}\right) + \left(\frac{1}{5000}\right) n$ | 800 + 200 n    | 4 + n          |
| By ten digit multiplier  | $\frac{1}{360}$   | 2,800          | 14             |
| DIVISION OR SQUARE ROOTING<br>Average time for nine digit result                   | $\frac{1}{38}$  | 26,000         | 130            |
| Average time for "n" digit result<br>( n = 3, 6, 7, 8, or 9 )                      | $13(n+1)\left(\frac{1}{5000}\right)$                          | $13(n+1)(200)$ | $13(n+1)$      |
| Maximum time for nine digit result   | $\frac{1}{23}$  | 42,000         | 210            |
| Maximum time for "n" digit result.<br>( n = 3, 6, 7, 8, or 9 )                     | $21(n+1)\left(\frac{1}{5000}\right)$                          | $21(n+1)(200)$ | $21(n+1)$      |
| OBTAINING A FUNCTIONAL VALUE ONCE  | $\frac{1}{1000}$  | 1000           | 5              |
| Repeated " n " times<br>( n = 1 to 9 )   | $\frac{1}{1250} + \frac{1}{5000} n$                           | 800 + 200 n    | 4 + n          |