

Technical Data

Counter Timer (AT) CT 541A manufactured by NUCLEONIX is an advanced technology based unit designed around a eight bit microcontroller chip. This unit is very versatile and can be operated in three modes namely PRESET TIME, CPS and CPM modes.

The user interface is through built-in keypad command buttons START, STOP, PROG, STORE/RECALL, INC and DEC. The visual indication is through LCD dot-matrix display. It has on board memory to store 1000 readings. The stored data readings can be recalled onto display or can be printed on a printer.

This unit has a built-in parallel port (centronics) facilitating direct data printing and a serial port RS 232 for connecting to a PC, for data communication.

The other features include programmability for assigning labels for the readings such as BG - for background, ST - for standard and SP - for sample counting.

It can count both positive and negative pulses in the range of 100 mV to 10V and upto a maximum frequency of 1MHz. LCD display indicates preset time, elapsed time and counts.

FEATURES :

- Microcontroller based state- of-art counter/timer
- Modes : Counting for preset time, CPS & CPM
- Dot-matrix LCD display indication for counts, elapsed time and preset time
- Store/recall facility for 1000 readings
- Built-in parallel port for direct data printing
- Built-in serial port for PC communication

SPECIFICATIONS

COUNTER / RATE METER

Input : 100mV to 10V, unipolar or positive bipolar semi-gaussian pulse

Pulse Width : 0.5 micro sec (min)

Polarity : Positive or Negative

Input Impedance : 5.0 K ohms

Input Counts Capacity : 999999 counts

Input Frequency (max) : 1 MHz

Pulse Height Discrimination : 100mV - 10V by a preset provided on front panel

Modes of Data Acquisition :

- a. Counts for a preset time
- b. CPS
- c. CPM

Counts Indication : 16x2 dot-matrix LCD display

TIMER :

Preset Time Setting : Programmable through tactile switch control buttons

Preset Time Range : 1 to 9999

User Interface: START, STOP, PROG, STORE, INC and DEC are the six control buttons provided on the instrument. The above buttons allow the user to program and operate the instruments in appropriate manner.

Preset Time / Elapsed Time Indication : On 16x2 LCD Dot matrix display

Additional Options :

- a. Data communication Software for down loading of data can be given.
- b. Printer.

Module connector :

Amphenol Connector Type : 26-159-24P-H (24 Pin Type) by default or NIM Standard as per AEC specifications TID 20893 (Rev) Type: AMP 204186-5.



Application : It is a part of modular Gamma ray Spectrometer, with single Counter / Timer.