

**MULTI SCALER TIMER**

**TYPE : CT 546A**

**Technical Data**

**Multi-Scaler Timer (AT)**, type: **CT 546A** manufactured by NUCLEONIX is an advanced technology based programmable Multi-scaler Timer with Six channels. This is designed around a eight bit microcontroller(s). This electronics is packed in a three bit module.

It has an external keypad with command buttons as START, STOP, PROG, INC, DEC, STORE. It has six independent input channels for counting upto six digit capacity in each channel with a preset time selection upto 9999 sec. This Multi-scaler Timer (AT) an Advanced Technology based unit programmable through external keypad, will serve as a multi-scaler for various Nuclear Counting Applications. This unit can count either positive or negative pulse in the range of 100 mV to 10 V and upto a maximum frequency of 1 MHz. Counts elapsed time etc are displayed on 20X4 LCD dot matrix display module.

Most important features being programmability and selection of data acquisition mode (CPS, CPM or Normal counting for preset time). Built-in parallel port for selective printing of data with SI.No. serial port facility for PC communication and downloading of stored readings, storage facility for readings upto 1000. Recall facility to display selectively of the stored data readings.

This unit is designed to be an integral part of FOUR / FIVE channel Gamma Ray Spectrometer system useful in geological prospecting for atomic minerals. Also in applications requiring multi scaling / counting / Nuclear counting upto six channels.

**FEATURES :**

- Microcontroller based design
- Modes Normal Counting, CPS & CPM
- This is an ideal choice for FOUR / FIVE channel Gamma Ray Spectrometry measurements in geological prospecting for atomic minerals.
- Number of channels: Six with common timer
- Built-in parallel port for direct connection to a printer for data printing
- Built-in serial port for down loading of data counts to PC
- Programmability through external keypad

**SPECIFICATIONS**

**No. of inputs :** Six

**Input :** Positive or Negative 100 mV to 10V gaussian or Semigaussian or TTL pulse. 0.5 micro sec width minimum.

**Input Discriminator :** 0.1 Volts to 10 Volts (for each channel selectable independently)

**Input Frequency :** 1 MHZ (Max)

**Counts Capacity :** 999999 counts / channel

**Elapsed Time :** 9999 seconds

**Program Keys :** START, STOP, PROG, STORE / RECAL, INC, DEC

**Display :** 20 X 4 LCD Dot Matrix

**Program Facility :** Acquisition mode (CPS, CPM or Normal counting) data printing etc.

**Program Method :** through external keypad

**Storage :** Upto 1000 readings

**Recall :** Selective recall

**Serial Port :** Built-in PC communication

**Parallel Port (Centronics) :** Built-in for printing of data readings

**Software (Optional) :** Software for downloading of data readings into PC

**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

**Input Power :** (90V - 265V) A.C @ 50Hz



**Application :** This is a SIX Channel Counter liner. It draws power from Instrumentation bin. Useful in applications requiring simultaneous counting from SIX different inputs with common timing.

**FILE\_NAME :** NSPL/DOC / DS / CT546A/01

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