SINGLE CHANNEL ANALYSER

TYPE : SC 530

Technical Data

Single Channel Analyser Type : ***SC530*** manufactured by NUCLEONIX is designed primarily to be a constituent unit of Modular Gamma Ray Spectrometer Type : GR611M.

Single Channel Analyser SC530 is essentially used for pulse height analysis. It has THREE modes of operations namely INTEGRAL, NORMAL and WINDOW. In Gamma Ray Spectrometer the scintillation detector pulse output is proportional to the Gamma Energy and hence accurate measurement of pulse height by Single Channel Analyser will give the energy information.

FEATURES :

- ❑ Accepts both positive unipolar or bipolar pulses as input
- ❑ Modes: INTEGRAL, NORMAL and WINDOW modes of operation
- ❑ Discriminator : LLD & ULD
- ❑ Output : Positive TTL
- ❑ Window width constancy, better than 30mV

SPECIFICATIONS

Input : Positive unipolar or bipolar (0-10V) linear range.

Input Impedance : 5K Ohm

Pulse Pair Resolution : Better than 1 micro second.

Output : 4V positive pulse of 0.5 micro sec width.

Output Impedance : Less than 100 ohms.

Lower Level Discriminator : Variable from 0 to 10V by means of ten turn helipot.

External LLD Reference Input : (Optional) 0 to 10V (12V maximum) 1K ohms input impedance.

LLD Output : 4V positive pulse of 0.5 micro sec width available on the rear panel.

LLD Output Impedance : Less than 100 ohms.

Upper Level Discriminator : Variable from (0-10V) in NORMAL mode. Variable from (0-1V) in WINDOW mode.
It is ineffective in INTEGRAL mode.

Non-linearity : Less than 0.3% of full scale for both discriminators.

Window width Constancy : Better than 30 mV variation over the Linear 0-10V range.

Maximum Zero Offset : Less than 0.5% of full scale for both the discriminators.

Power requirements :

+24V	20mA	+12V	180mA
-12V	60mA	-24V	5mA

Dimensions : Standard single width module.

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.

FILE_NAME : NSPL/DOC / DS / SC530/01

VER_20150718