

NOTICE

Enquiry No. 01/PHY/INO/GG/2014-15.

dt.6.8.2014

Quotations are invited for the following items from R&D Efforts by University Groups for INO Project Grant

1. NIM-TTL-NIM Adapter

SPECIFICATIONS

8NIM-TTL, 8TTL-NIM translator channels.

Less than 10 ns input/output delay.

60 MHz max. operating frequency.

No duty-cycle limitations.

2. 4 Channel 5.5 KV/300 μ A NIM HV Power Supply Module (USB)

SPECIFICATION

4 channels in 1U NIM module

5.5 kV / 300 μ A output ranges

Channels with individually selectable positive or negative polarity

SHV coaxial output connectors

Common floating return

Low ripple (Typ: < 5m Vpp)

100 mV V set resolution

5 nA I set resolution (x 10 I_{mon}- Zoom: 500 pA)

Current offset calibration

Under / over-voltage alert, over current and max. voltage protection

Programmable ramp- up / ramp-down (1-500 V/s)

Daisy chain capability

Graphic colour display

Local & remote control (usb2.0/RS485/RS232)

Interlock logic for board enable & Individual channel kill

3. 8 Channel Constant Fraction Discriminator SPECIFICATION

Individually programmable thresholds
Programmable output width
Programmable dead time
TEST and VETO inputs
OR and Current sum outputs
4 digit Led display

4. 16 Channel NIM-ECL/ECL-NIM Translator and Fan Out SPECIFICATION

16 independent NIM to ECL/ NIM and ECL to NIM/ECL channels
NIM fan-out of two
300MHz maximum operating frequency
2 COMMON IN input with a fan-out of 16 NIM and ECL
I/O delay from 15 to 3.5 ns, depending on input type

5. Dual Delay SPECIFICATION

Delay from 0 to 63.5 ns (+1.6 ns offset) per section
No power supply required
0.5 ns step
 ± 100 ps accuracy on 0.5 to 8 ns delay lines, ± 200 ps on higher lines
VSWR<1.15

6. Quad Coincidence Logic Unit SPECIFICATION

4 independent section
Two inputs per section
130 MHz max input frequency
6 ns double pulse resolution
10 ns I/O delay
Switch selectable AND/OR logical function
Adjustable output FWHM (4 to 650 ns)
Overlap output
Common Veto

7. Quad Linear FAN-IN FAN-OUT SPECIFICATION

Four independent sections
Bipolar inputs
Four 4 Input+4 Output Fan in/Fan out section
1 Channel Discriminator Featured
Inverting or non-inverting mode independently selectable on each section
100 z bandwidth

8. 4-8 Logic FAN-IN/FAN OUT SPECIFICATION

4 independent sections with 4 inputs each
Or output with fan out of four per section
Possibility of cascading Channels to form dual 8-fold fan-in/fan out
Input/output delay less than 7 ns
100 z max. input frequency

9. Quad Scaler and Preset Counter/Timer SPECIFICATION

Four 8-digit up counters with 250 MHz max counting rate
One 7-digit down-counter with 80MHz max counting rate
NIM and TTL inputs
One LED display per section
Up to three sections can be cascaded for 24-digit counting
Frequency and frequencies ratio measurements
Individual GATE and RESET per counter
Manual or pulse Triggered RESET

10. NIM High Voltage Power Supply SPECIFICATION

Dual HV Supplies in single NIM packages
Regulated 0 to +/-3KV, output current 0 to 4mA
Programmable HV-ramp 2..255 V/S and 500 V/S ramp hardware settable, up and down
LCD Display 4 Digits with sign for voltage and current
Resolution of voltage indication :1V
Resolution of current indication :1uA
Front panel LED indicators for polarity
Low noise and ripple for high resolution detectors:< 2mVpp typical, 5 mVpp max.
Settable Voltage and current limiting
Short circuit and overload protected
Programmable HV parameter setting and polling of actual values via RS232C interface
Continuous setting of HV over full range with 10 turn Helipot
Easy access to manual polarity switch
External input for HV shutdown

11. NIM-BIN/Power Supply

NIM Standard SPECIFICATION

300 W Capability
Thermal Protection
Optional Over voltage Protection for +6V

12. Digital Delay/ Pulse Generator

50pS Jitter Internal, 800pS External Trigger
Programmable (Ethernet/USB/RS-232/GPIB)
Independent clock rates for each channel

Vendors should submit, along with the quotations all the necessary documents.
The last date of submission of quotations is 29.08.2014.



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