R.M.H. Module, Type 4236

Provisional Specifications

The instrument contains 32 line Receiver - discriminator - Memory circuits for signals from preamplifiers (x 10) mounted on multiwire proportional chambers (see system lay-out Fig. 1). The individual channels are custom designed hybrid circuits. The unit is divided into two groups of 16 channels, which are read-out separately.

INPUTS

Frontpanel:

a) 32 wire signal inputs (push-pull via edge connector).

b) 1 Fast strobe (NIM LEMO connector).

c) Threshold control (plug).

d) Flag switch.

Rear Connector:

a) 1 Fast strobe (crate)

b) 1 Read

c) 1 Reset

d) Threshold control

OUTPUTS

Frontpanel:

a) Monitor (NIM, LEMO connector)

Rear Connector:

a) Data (16 x 2 pins), Flag (1 x 2 pins)

b) Mem. OR upper 16 channels (2 pins), Mem. OR lower 16 channels (2 pins), Mem. OR of 32 channels (2 pins).

c) Monitor (2 pins).

SPECIFICATIONS

a) Input threshold:

Adjustable between 5 and 25 mV (push-pull) for simulated fast wire pulses (tr = tf = 10 nsec).

b) Threshold for positive wire pulses:

> 100 times negative input threshold.

c) Crosstalk between channels:

< - 40 db

d) Min. fast strobe width:

≃ 10 nsec.

e) Propagation delay:

at 20 db overdrive, input-strobe gate ≃ 9 nsec, input-monitor output ≃ 12 nsec.

f) Time slewing:

3-20 db overdrive < 7,5 nsec.

3-40 db " < 9 nsec.

g) Max. rate:

At 3 db overdrive > 15 MHz.

h) Monitor output

NIM logic pulse (0-800 mV), 7 nsec width, can drive 50 Ω cable.

i) Temperature dependence (0-60°C)

Threshold: < 0,2%/°C

Propagation delay: < 1 nsec.

k) Consumption:

-5,2 V, 3A.

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1975.07.22