N-277
INSTRUMENTATION AMPLIFIER
FEATURES

THRESHOLD	500 nano-amp. ±75 nano amps (Set by external voltage; 1 volt = 1 μ amp.). Input impedance Rin is 330 ohms.
POLARITY	Both positive and negative inputs are provided. Each input is protected with two diodes connected to ground. Always ground all unused inputs inorder to minimize the input noise.
NOISE	1000 hz for 16 channels: 400 hz maximum for an individual channel Test conditions: Threshold 0.5 volts; negative inputs shunted by 50 ohms; positive inputs grounded.
TIME WALK	8.5 nano-sec maximum, 6.5 nano-sec. typical average. Test conditions Threshold set at 0.5 volts. Test pulses 1.3 and 6.5 micro-amps.
CROSSTALK	Adjacent channels, greater than 30 db, Non adjacent channels over 40 db.
FAST OR OUTPUTS	Delivers -0.6 ma from a current source, i.e. -30 mv into 50 ohms.
SIGNAL OUTPUTS	Drives 16 differential ECL lines into a 34 conductor ribbon cable. 50 nano second pulse width; limits the cable length to less than 150 feet!
TEST PULSE INPUT	The test pulse applies a signal to the input of every channel. Boards are supplied with the negative test pulses enabled. A jumper wire selects either positive or negative test pulse inputs.
POWER	350 mw per channel. Protected against accidental power reversal! Total power for a 16 channel card; +5 volts 0.4 amp: -5 volts 0.68 amp.
N-277-C	Positive and Negative inputs; Rin = 330 ohms.
N-277-C3	Negative inputs Rin = 330 ohms, Positive inputs grounded. FERMILAB standard.
N-277-CD	Positive and Negative inputs; Rin = 56 ohms. May be used as a silicon detector line amp/disc. with line input impedance of 112 ohms.
N-277L-?	L indicates two power connectors, on the input and output side of the card. The input configuration of C, C3, and CD are as described above.

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