



Innovator In Spectroscopy Equipment

LINEAR FANOUT MODEL LFOUT2037



NUCLEAR INSTRUMENTS MODULE



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Features:

- Dual in Quad Linear
- Fan-Out Linear or Logic input
- Integral, normal, and window modes
- Separate lower-level and upper-level discriminator outputs
- DC-coupled
- Fully Bipolar Operation to ± 1.65 Volts
- DC offset adjustable

Description:

The LFOUT Model 2037 is a high-performance, economical, linear fan-out unit suitable for use with either logic or photomultiplier pulses. It offers two independent wide bandwidth channels, each having unity gain and each having one input and four isolated identical outputs. These two channels may be combined at their inputs with T BNC-type connector to provide a single 8-output channel. The Model 2037 utilizes a direct-coupled, feedback-stabilized circuit design that provides excellent linearity, long-term stability, and uniformity of gain and pulse shape at all outputs. The speed of the unit is adequate for most common photomultiplier pulses and logic signals, and there are no duty cycle restrictions or rate effects.

Both input and output DC levels are at ground potential for easy interconnection with other direct-coupled circuits. Fully dc coupled. The LFOUT Model 2037 is packaged in an AEC/NIM (Report TID-20893), RF-shielded, #1 width module and utilizes BNC-type connectors.

Specifications:

- **Inputs:**
 - General: One BNC input connector per channel; bipolar input, accepts positive or negative voltages.
 - Impedance: $50\Omega \pm 2\%$ direct coupled input.
 - Overdrive Response: Recovery time of 20nSec for a ± 10 Volt input.
 - Maximum Amplitude: -1.6 volts into 50Ω ; -3 volts into open circuit. Positive
- **Outputs:**
 - Outputs of 1-2 and 3-4: 4 direct-coupled. 50Ω output impedance
- **Controls:**
 - OFF ADJ: Dc offset adjust in $\pm 100\text{mV}$
- **Performance:**
 - Dynamic Range 200:1.
 - Gain Fixed gain of $1.0 \pm 5\%$, non-inverting.
 - Rise Time: Typically 5nSec, for a 1 Volt output excursion.
 - Insertion Delay: Typically 10nSec.
 - Inputs: ± 1.65





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Electrical and Mechanical Power Required:

- **Typical Power Requirements**

- Power Required +6V, 110mA; -6V, 110mA; +24 V, 90mA; -24 V, 50mA.

- **Physical**

- Weight: Net 1.1 kg (2.5 lb) & Shipping 2.25 kg (5.0 lb)
- Dimensions NIM-standard single-width module 3.43 X 22.13 cm (1.35 X 8.714 in.) per DOE/ER-0457T

- **LFOUT2037 Rev 1.0 90807**

Typical Application for LFOUT:

- Fan-out detector signals to simultaneously drive discriminators
Converters
- Transient recorders or other signal conditioning
- Data acquisition instruments systems



