FTA820A
Octal Fast Timing Amplifier

- For amplifying fast analog signals from photomultipliers, electron multipliers, photodiodes, microchannel plates, and silicon charged-particle detectors
- ≤20 µV rms equivalent input noise
- ≤1 ns rise time
- Gain of 200
- Output drives -5 V into 50 Ω
- Eight separate and identical amplifiers in a single-width NIM

The FTA820A amplifier is a high-performance, wide-bandwidth amplifier designed for boosting very fast linear signals from photomultipliers, electron multipliers, silicon charged-particle detectors, and other detectors used in fast-timing applications. The rise time is <1 ns with a 5-V output, enabling excellent timing resolution.

The FTA820A provides eight separate and identical amplifiers in a single-width NIM module. Each amplifier section has a gain of 200, noninverting. LEMO type 00C50 connectors are used for all signal connections.

### PERFORMANCE
- **Gain for each Channel** (10% gain tolerance) 200, noninverting.
- **Number of Channels** 8
- **Rise Time** ≤1 ns
- **Noise** ≤20 µV rms equivalent input noise.
- **Bandwidth** 10 to 350 MHz
- **Output Range** 0 to -5 V with 50-Ω load.
- **Inputs** One for each channel. LEMO connector; input impedance 50 Ω.
- **Outputs** One for each channel. LEMO connector; 0 to 50-V output with 50-Ω load. Output impedance ≤1 Ω.

### ELECTRICAL AND MECHANICAL
- **Power Required** +12 V, 400 mA.
- **Dimensions** Standard single-width NIM module 3.43 x 22.13 cm (1.35 x 8.714 in.) per DOE/ER-0457T.
- **Weight**
  - Net 1 kg (2.2 lb)
  - Shipping 2.7 kg (5.9 lb)