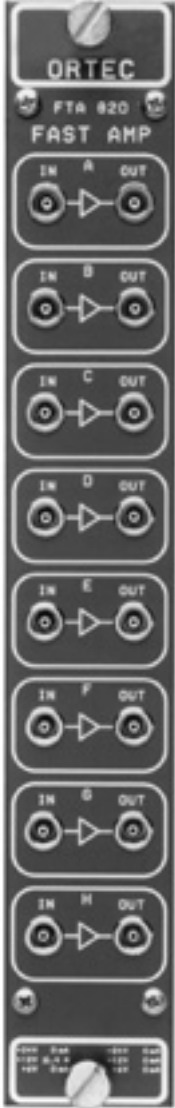


FTA820A

Octal Fast Timing Amplifier



- For amplifying fast analog signals from photomultipliers, electron multipliers, photodiodes, microchannel plates, and silicon charged-particle detectors
- $\leq 20 \mu\text{V}$ rms equivalent input noise
- $\leq 1 \text{ ns}$ rise time
- Gain of 200
- Output drives -5 V into 50Ω
- 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 $< 1 \text{ ns}$ 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 $\leq 1 \text{ ns}$.

Noise $\leq 20 \mu\text{V}$ rms equivalent input noise.

Bandwidth 10 to 350 MHz

Output Range 0 to -5 V with $50\text{-}\Omega$ load.

Inputs One for each channel. LEMO connector; input impedance 50Ω .

Outputs One for each channel. LEMO connector; 0 to 50-V output with $50\text{-}\Omega$ load. Output impedance $\leq 1 \Omega$.

ELECTRICAL AND MECHANICAL

Power Required $+12 \text{ V}$, 400 mA.

Dimensions Standard single-width NIM module $3.43 \times 22.13 \text{ cm}$ ($1.35 \times 8.714 \text{ in.}$) per DOE/ER-0457T.

Weight

Net 1 kg (2.2 lb)

Shipping 2.7 kg (5.9 lb)