

Model 7011

FAST AMPLIFIER/DISCRIMINATOR



FEATURES

- 200 MHz Amplifier/Discriminator
- DC-coupling (Composite Amplifier)
- Fast NIM-, shaped and TTL output
- DC adjustment

APPLICATIONS

- Ultra high countrate Single Photon Counting
- LIDAR
- Mass-Spectrometry
- other general purpose use

DESCRIPTION

The 7011 Amplifier/Discriminator combines a fixed gain inverting Amp with a leading edge discriminator. Both functions can be used independently.

The input polarity of the discriminator has to be set to match the polarity of the input signal. Three types of output signals are available:

- FAST-NIM output > 200 MHz,
- a shaped negative output >90 MHz
- and a positive TTL output > 50 MHz.

SPECIFICATIONS

Amplifier

Input: positive or negative DC-coupled
Output: inverted

Discriminator

Input: positive or negative DC-coupled selectable by a toggle switch
Outputs: FAST-NIM negative > 200 MHz
formed negative > 90 MHz
positive TTL with adjustable width - max. 50 MHz

PERFORMANCE

Amplifier

Gain: approx. x 10
Noise: < 50 uV referred to the input
Band width: DC to > 200 MHz (250 MHz typical)



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Discriminator

Count rate: > 200 MHz
Pulse pair resolution: > 5 nsec
Threshold stability: +/-0,02 %/oC

CONTROLS

Amplifier

DC adjust range
Discriminator
threshold 10-turn precision potentiometer to set
acceptance threshold for input pulses
range 10mV to 1.2V
Input polarity to set input to the signal polarity + or -. Setting
is indicated by LED

POWER REQUIREMENTS:

Version 7011: +6V 300mA, -6V 400mA (can also be
operated from +/- 12V)

PHYSICAL:

size: single width NIM module 3.43 x 22.12 cm
as per TID 20893 (rev)
net weight 0.85 kgs
shipping weight: 1.9 kgs

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