

Pulse amplifier module:

The NIM - AMP module is optimized for pulse detection from secondary electron multiplier systems (MCPs, Channeltrons, PMTs)

NIM - AMP device features:

- available as 2 channel, 4 channel or 6 channel version
- differential inputs (usable as single), single outputs
- wide output range of $\pm 2V$
- 50 Ohm inputs
- all inputs high voltage protected by ESD up to 8 kV (HBM)
- gain fixed or adjustable between 12 dB and 48 dB (defined customer specifically)
- unity gain bandwidth 2 GHz, low distortion, slew rate 10.5V / ns
- rise- / fall time min. 0.6 ns @ 12 dB and 4 V step
- typ. bandwidth range in small signal application 0.5 GHz – 0.9 GHz (highest values only for low amplification factors available, max. output 200 mV p-p)

The NIM - AMP module is a wide-band, high-speed current-feedback amplifier, designed to operate over a wide output and frequency range combined with distortion as low as -74 dBc at 10 MHz, plus an extremely high slew rate of 10500 V/ μ s. It may drive a 2-VPP envelope into a 100- Ω load.

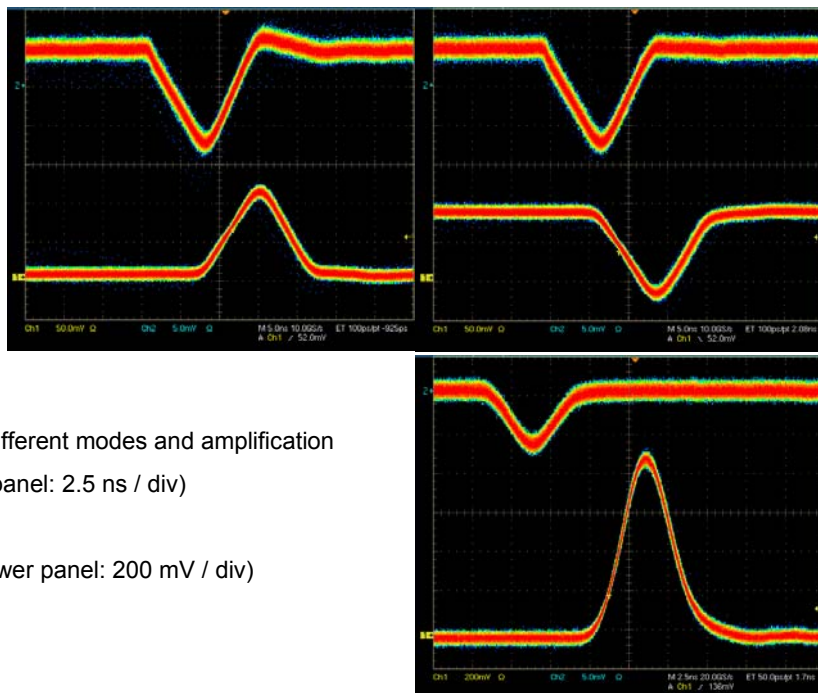


Fig. 1: AMP operation for different modes and amplification

t(scale) = 5 ns / div (lower panel: 2.5 ns / div)

U(Input) = 5 mV / div

U(Output) = 50 mV / div (lower panel: 200 mV / div)