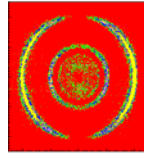# LA1 Level Adapter: (LV)TTL-NIM-TTL

RoentDek
Handels GmbH

Supersonic Gas Jets
Detection Techniques
Data Acquisition Systems
Multifragment Imaging Systems

The **RoentDek LA1** level adapter series features different converters for logic signals like NIM, TTL and LVTTL. Each unit is factory-fixed for a specific conversion task like:

- TTL in   out: 1x NIM and 1x fixed-width NIM (fix width selectable by poti)
- LVTTL in   out: 1x NIM and 1x fixed-width NIM (fix width selectable by poti)
- LVTTL in   out: 1x fixed-width TTL and 1x fixed-width NIM (fix width selectable by poti)
- NIM in   out: 1x fixed-width TTL and 1x fixed-width NIM (fix width selectable by poti)

Trigger threshold is set to

+ 1.4 V for (LV)TTL in
- 0.35 V for NIM in

Input and output impedance will always be 50 Ohms for NIM signals. TTL input impedance can be factory-set to 50 Ohms, 500 Ohms or 2 kOhms. TTL output impedance can be factory-set to drive either 50 Ohms or kOhm inputs.

The output width is selectable between < 10 ns (6ns for NIM) and 2.5 µs
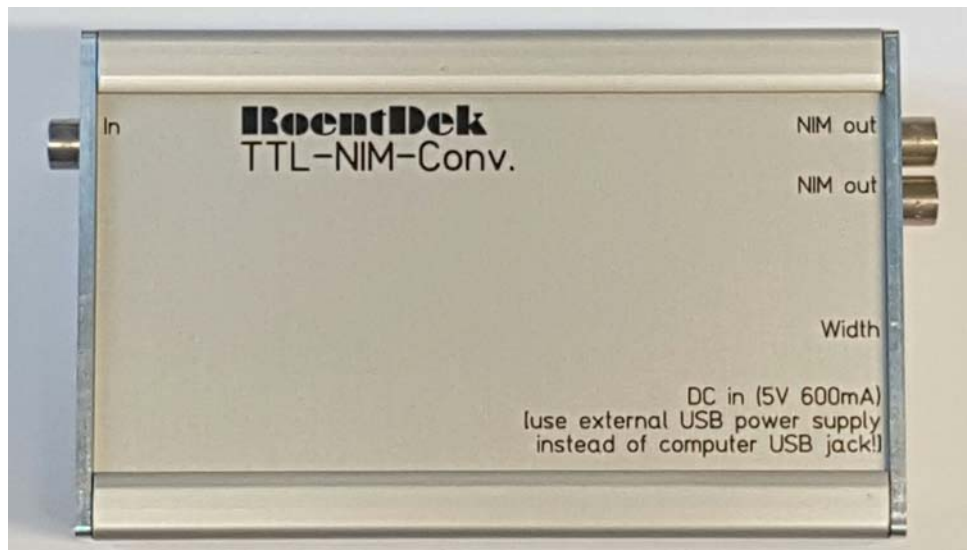Maximum rate is 100 MHz (might be limited by the length of input and/or output signals)

Figure: RoentDek LA1 configured as TTL-NIM converter.

The unit has a power consumption of about 3 W (0.6 A at +5 V) via a USB socket as power input (no data connections). We strongly recommend using a standard external USB power supply (i.e. 5 V/1 A, as included) instead of connecting an **LA1** to a PC USB socket.

Size (approx.): 110 mm x 65 mm x 40 mm, weight: 300 g (without power adapter).