



# NIM 2 TTL converter



MPD NIM 2 TTL converter is a module capable to convert an input NIM pulse to a Low Voltage TTL output pulse with the same width. This new instrumentation, completely based on solid-state components, fully maintains the input time-jitter performance without the typical drawbacks of passive pulse inverters at high pulse rates.

## NIM to TTL converter

-800mV NIM standard input pulse converted to 2.7V Low Voltage TTL standard

## High performance

< 5 ps timing jitter

## MODULE FEATURES

- 12 V power supply
- NIM input
- Low voltage TTL output
- < 5ps timing jitter
- 4 ns propagation delay
- Input pulse width preserved
- No baseline recovery as with passive inverters

## BIOMEDICAL APPLICATION

- Correlation Measurements
- Spectroscopy
- Time-correlated single photon counting
- Optical Tomography

## INDUSTRIAL APPLICATION

- Streak camera synchronization
- Short gate acquisition experiments

## Overview

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## Specifications

Parameter	Symbol	Description	Min.	Typ.	Max.	Unit
Power Supply	$V_{IN}$		6	12	15	V
Input Supply current	$V_{IN,6V}$	$V_{in}=6V / R_L=50 \text{ Ohm}$		138		mA
Input Supply current	$V_{IN,12V}$	$V_{in}=12V / R_L=50 \text{ Ohm}$		85		mA
Maximum input frequency	$f_{MAX}$				100	MHz
Input pulse width	$T_{WIDTH}$	at $TH_{NIM}$ level	2			ns
NIM input threshold Voltage	$TH_{NIM}$			-237		mV
Propagation delay NIM-IN to TTL-OUT		NIM falling /TTL rising edge		4		ns
LVTTTL output amplitude HIGH	$V_{OUT,HIGH}$	$R_L=50 \text{ Ohm}$		2.7		V
LVTTTL output amplitude LOW	$V_{OUT,LOW}$	$R_L=50 \text{ Ohm}$		0		V
OUTPUT pulse width			same as input			ns

Designed and built compliant with the European Union Directive 2011/65/CE (also known as RoHS 2)

## Ordering Information

The NIM to TTL converter can be ordered from Micro Photon Devices Srl or its representatives. The ordering code is the following:

***\$NIM2TTL***

## Warranty

A standard legal warranty according to local legislation applies following shipment. Any warranty is null and void if the module case has been opened or if the absolute maximum ratings are exceeded. Specifications are subject to change without any notice. Document version 1.1 – Sept. 2019.


## Contacts

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<b>Packing list</b>	<b>Mechanical Dimensions</b>
 <p>Accessories included in the box: power supply with socket adaptors</p>	