

# Data Sheet NETLion 1000

Dual Media Converter & Network TAP  
100/1000BASE-T1 – 100BASE-TX/1000BASE-T

## NETLion 1000

### Product Description

NETLion 1000 is a development tool for 100/1000BASE-T1 networks. It helps the user with logging and analysis of data traffic or with the conversion of 100/1000BASE-T1 physical layers to 100BASE-TX/1000BASE-T Ethernet, as Ethernet is the commonly used network technology.

#### Dual Media Converter Mode

NETLion 1000 converts up to two 100/1000BASE-T1 signals to 100BASE-TX/1000BASE-T Ethernet. You can use two independent bi-directional converter channels.

#### Network TAP Mode

During the operating mode "Network TAP", you can decouple data of the two 100/1000BASE-T1 line ends and transmit data to the two 100BASE-TX/1000BASE-T interfaces with no interference on the communication in the 100/1000BASE-T1 network.

#### Software Interfaces

NETLion 1000 has a configuration Ethernet port where you can access the web interface.

With the NETLion 1000 web interface you can see signal quality, occurring errors, as well as the status of the device.

For automation, NETLion 1000 provides a common gateway interface to change the device settings.

#### Use in the Automotive Area

NETLion 1000 can be used on the development desk and even in harsh environments. Power supply and operating temperature range are designed for the permanent integration under these conditions.



Figure 1: NETLion 1000



#### Configuration

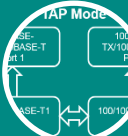
- Status
- Test Mode 100M
- Test Mode 1000M
- OAM
- Cable Tester
- Settings
- Update
- About
- Disclaimer

#### NETLion 1000 - Mediaconverter (MC) / TAP

	Channel 2	Channel 1
<b>100/1000BASE-T1</b>		
Link	<input checked="" type="button" value="Yes"/>	<input checked="" type="button" value="Yes"/>
Autonegotiation	<input type="button" value="Off"/>	<input type="button" value="Off"/>
Autodetect	<input type="button" value="Off"/>	<input type="button" value="Off"/>
Master / Slave	<input checked="" type="button" value="Master"/>	<input type="button" value="Slave"/>
Speed	<input checked="" type="button" value="1000M"/>	<input checked="" type="button" value="1000M"/>
Legacy Mode	<input checked="" type="button" value="On"/>	<input checked="" type="button" value="On"/>
Link Down Pass Through	<input type="button" value="Off"/> <input type="button" value="N/A"/>	<input type="button" value="Off"/>
<input checked="" type="button" value="MC"/>		
<b>100BASE-TX / 1000BASE-T</b>		
Speed	<input type="button" value="N/A"/>	<input type="button" value="N/A"/>
Link	<input type="button" value="No"/>	<input type="button" value="No"/>


Figure 2: NETLion 1000 Web Interface

### Features and Highlights




**Two Devices in One**

- Dual Media Converter
- 100/1000BASE-T1 network TAP




**LEDs for**

- 100/1000BASE-T1 Signal Quality
- Operation Mode
- Status
- Master/Slave
- Ethernet Port Speed




**Web & SW-Interface**

- For the view of diagnosis data and further PHY adjustments
- Modes for compliance tests of 100/1000BASE-T1



**Cable Properties Tester**

- Polarity
- Length
- Status (open, short circuit, terminated)



**Simple Configuration**

- Basic configuration without PC (DIP switches)
- Extended Configuration and diagnosis via NETLion web interface

# Data Sheet NETLion 1000

Dual Media Converter & Network TAP  
100/1000BASE-T1 – 100BASE-TX/1000BASE-T

## Specifications and Approvals

### Operating Temperature

-40 °C to +75 °C ambient

### Supply Voltage

9 V to 48 V

### Housing Dimensions

127 x 105 x 26 (l x w x h, all dimensions in mm)

### Approvals

CE, FCC, VCCI, RoHS, REACH

### Interfaces

Amount	Description	Function
2	100BASE-T1 1000BASE-T1	Data traffic which refers to mode in operation
2	100BASE-TX 1000BASE-T	Data traffic which refers to mode in operation
1	Ethernet	Configuration and analysis (Management/MGMT)
16	LEDs	Signal quality and information LED

## Panels



Figure 3: Interface for power, DIP switches for link configuration and 100/1000BASE-T1 interfaces

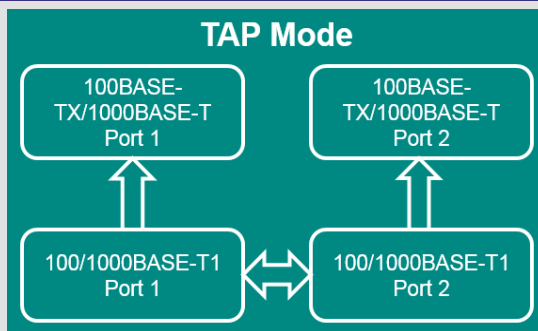


Figure 4: 100Base-TX/1000BASE-T interfaces, MGMT Port, DIP switches for device settings

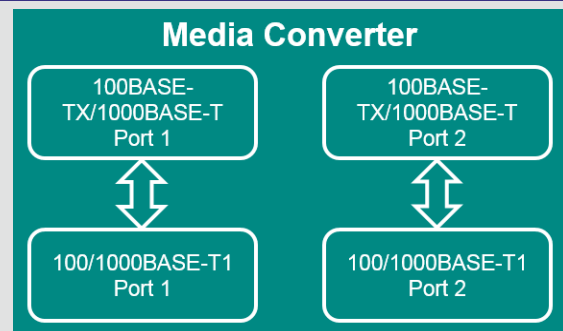
### DIP Switch Configuration

Media Converter Modem / TAP Mode; DIP Switch Mode / Software Mode; Autodetect / Autonegotiation / Master /Slave / 1000M /100M

## Block Diagram of the System



Decoupling of data of one 100/1000BASE-T1 line in both directions without influence of the communication



Conversion of two 100/1000BASE-T1 signals in standard 100BASE-TX/1000BASE-T Ethernet signals (bi-directional)

## Ordering Information

Name	Article-No.	Description
NETLion 1000 C2T – 100/1000BASE-T1	B18005-NEL-001-0001	100/1000BASE-T1 – 100BASE-TX/1000BASE-T Dual Media Converter & Network TAP
NETLion 1000 C2 – 100/1000BASE-T1	B18005-NEL-001-0002	100/1000BASE-T1 – 100BASE-TX/1000BASE-T Dual Media Converter