

LANID

A comprehensive TOOL for LAN
installation and troubleshooting

User's Manual



Patent Pending

Introduction

Congratulations on your purchase of the LANID Network Device Identifier! The LANID is the quintessential diagnostic tool for network installers and troubleshooters working with small LANs. Using the LANID, network administrators can quickly confirm features of LAN devices and diagnose problems during LAN installation. With a push of a button, the LANID will determine whether the device you are testing whether it supports the following topologies and capabilities:

- *Auto negotiation*
- *100BASE-Tx full duplex*
- *100BASE-Tx half duplex*
- *10BASE-T full duplex*
- *10BASE-T half duplex*
- *100BASE-T4*

Moreover, the LAN ID can also act as a network device, negotiating with other LAN devices to determine faults. The "auto-negotiation" function provides automatic speed matching for multi-speed devices, allowing devices to configure to the best possible mode of operation over a link. When linked up with another LAN device, the LAN ID will provide the following information about that device:

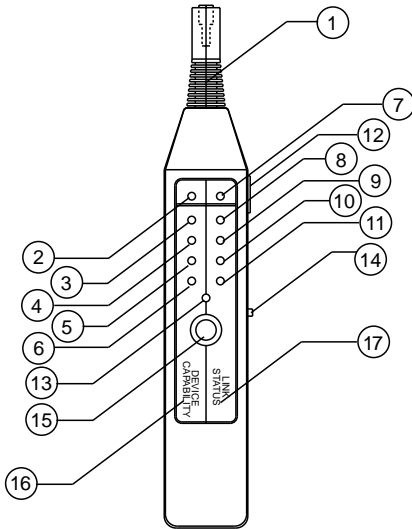
- *Whether the link is up or not*
- *Whether the device is transmitting a packet or not*
- *Whether the device is working in full duplex mode or half duplex mode*
- *Whether the device is operating in 100BASE-Tx, 10BASE-T or 100BASE-T4 mode*
- *Whether a data transmission error has occurred*

The compact "pen style" design provides the user with optimum convenience and portability.

LANID Contents

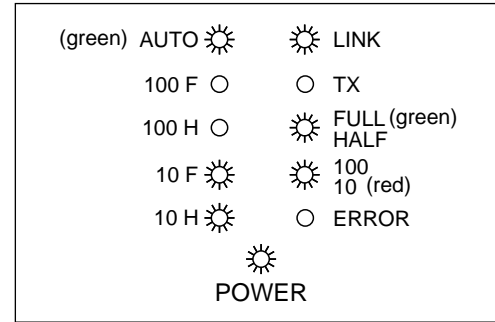
- LANID Users manual
- Soft vinyl carrying pouch
- One 15cm Twisted pairs RJ45 cable
- One RJ45 to RJ45 coupler

Product Profile



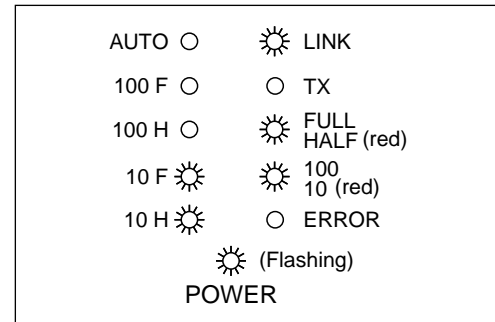
- ① PLUG TO HUB'S JACK
- ② AUTO NEGOTIATION LED (10/100 BASE-T GREEN LED 100 BASE-T4 RED LED)
- ③ 100Mbps WITH FULL-DUPLEX LED
- ④ 100Mbps WITH HALF-DUPLEX LED
- ⑤ 10Mbps WITH FULL-DUPLEX LED
- ⑥ 10Mbps WITH HALF-DUPLEX LED
- ⑦ LINK LED
- ⑧ TX LED
- ⑨ FULL-DUPLEX OR HALF-DUPLEX LED
- ⑩ 100 Mbps OR 10Mbps LED
- ⑪ ERROR STATUS LED
- ⑫ FOR NIC(Network Interface Card) JACK
- ⑬ POWER LED
- ⑭ POWER ON/OFF SWITCH
- ⑮ TEST KEY
- ⑯ LEFT SIDE FOR DEVICE CAPABILITY INDICATOR
- ⑰ RIGHT SIDE FOR LINK STATUS INDICATOR

6. The tested device is a 10/100 BASE-TX capable of auto-negotiation, but is configured at 10Mbps.



NOTE: If you configure a NIC as 10Mbps/full-duplex mode, the device capability display will be different from the above diagram, depending on the NIC device driver. This means your card is capable of 10 or 100 Mbps, but you are running the card at only 10Mbps. You should then reconfigure your card to maximize speed.

7. The tested device is a 10 BASE-T device, but the battery power is too low to display reliable results. At this time, you must replace the battery with a new one.



Specifications

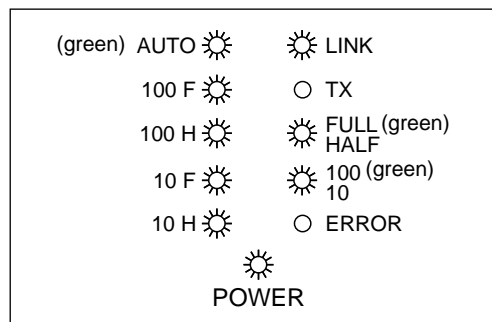
Model number	256655
Connector type	RJ-45
Recommended operation temperature	0 ~ 70 °C
Power supply	DC3V , 2*AAA battery
Power consumption	350 mW typical 100 μW in Power Down Mode
Display	LED indicator
Enclosure	Durable plastic housing
Dimensions	215x34x34mm

LANID Signal Description

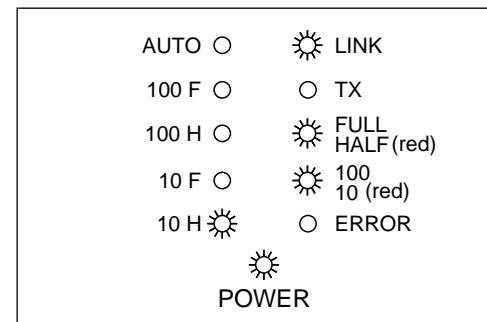
○ LED is off

☀ LED is on

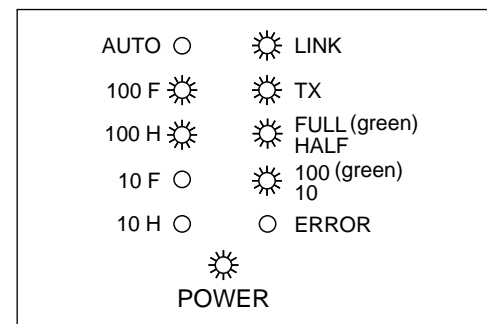
1. The tested device is a 10/100 BASE-TX half/full duplex device capable of auto-negotiation and link at a speed of 100Mbps in full-duplex mode.



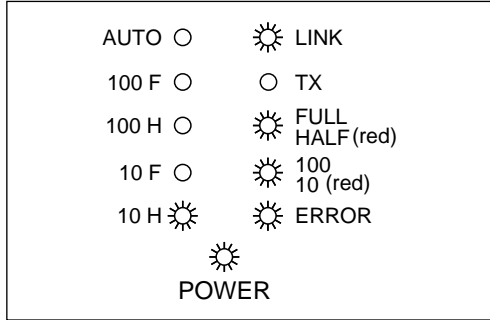
2. The tested device is a 10 BASE-T NIC without auto-negotiation and link at a speed of 10Mbps in half duplex mode.



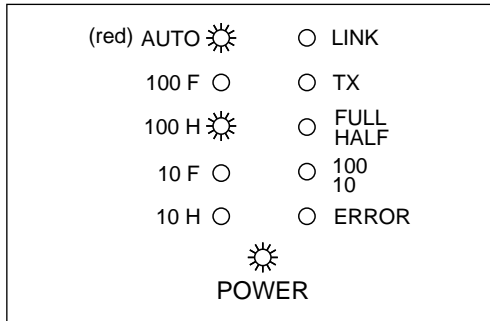
3. The tested device is a 100 BASE-TX full-duplex device capable linked at 100Mbps in full-duplex mode. It is also transmitting an auto-negotiation packet.



4. The tested device is a 10 BASE-T, half-duplex device, linked at 10Mbps in half-duplex mode and is communicating bad packets.



5. The tested device is a 100 BASE-T4 device capable of auto-negotiation.



NOTE: LANID does not Link with 100BASE-T4 but it can advertise in the Auto-Negotiation 100BASE-T4 operation

Application

1. HUB Testing

- Turn the power switch on and plug the LANID marked "Hub" into a hub port, wall plate or patch panel that you wish to test.
- Push the "TEST" button and read the results
- The LANID will determine the status of the port and display the capabilities of the device connected (left-hand side) as well as the link status (right-hand side).

2. NIC (Network Interface Card) Testing

- Plug the provided patch cable into the "NIC" port on the right-hand side of the LANID
- Push the "TEST" button and read the results
- The LANID will display the capabilities of the NIC connected (left-hand side) as well as the link status (right-hand side).
- If you are not sure whether a HUB or NIC is connected on the other end, you can push the "TEST" button to see if the green "LINK" LED lights up.
- This will tell you that the cable is connected to an NIC or a Hub uplink port.

Features

- IEEE 802.3 compliant Fast Ethernet PHY negotiation
- Power down mode significantly reduces power consumption
- LED indicators test and monitor line connection status and determine features of the device being tested
- RJ45 connector allows quick and easy connections to most network devices
- Small, handheld pen-style casing allows for convenient application and portability