

NSM-2402-T1L

Unmanaged 2-port 100 Mbps and 4-port T1L Single Pair Ethernet Switch

Features

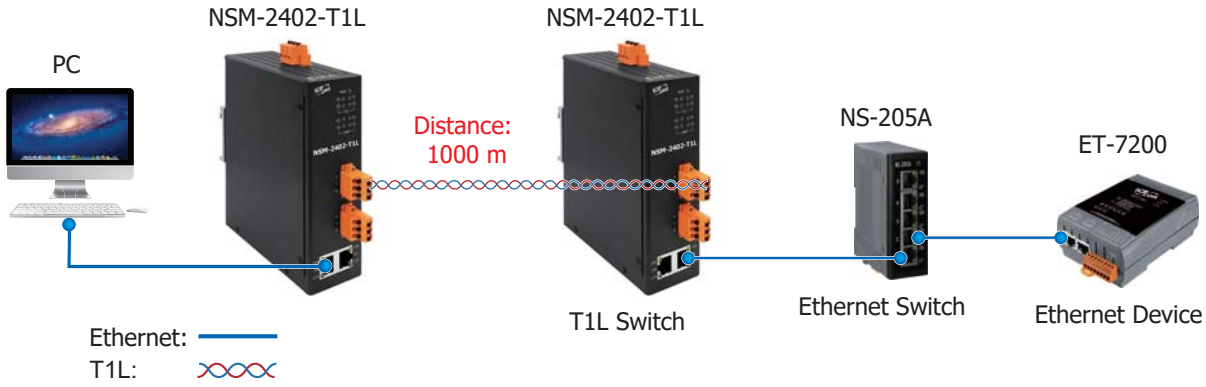
- 2-port RJ45 (10/100 Base-TX)
  - Supports Daisy-chain Topology
  - Supports LAN Bypass
- 4-port T1L (10 Base-T1L)
  - Independent LED Indicators for SNR Quality
  - Up to 1000 m Communication Distance

Introduction

The NSM-2402-T1L is a 2-port 10/100 Mbps and 4-port 10 Mbps T1L Ethernet Switch. The new architecture provides a communication distance far beyond that of traditional Ethernet, greatly expanding the scope of application.

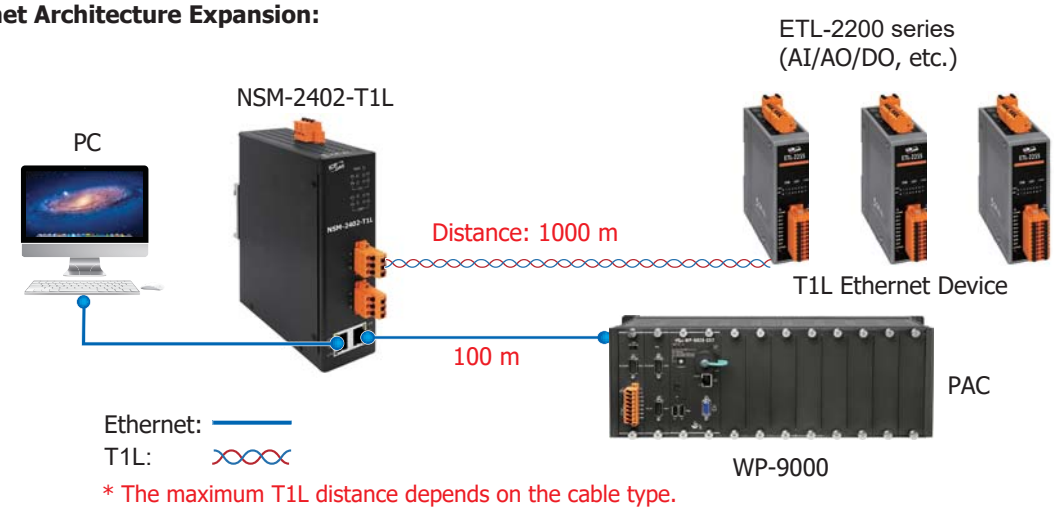
Applications

Long-Distance Communication:



* The maximum T1L distance depends on the cable type.

Ethernet Architecture Expansion:



* The maximum T1L distance depends on the cable type.

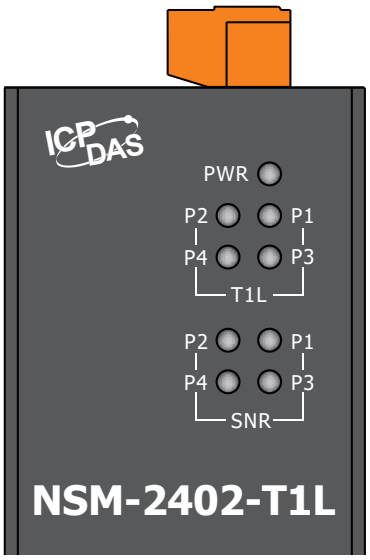
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Specifications

LED Indicators	
Status	PWR, T1L L/A, T1L SNR
Ethernet	
Ports	2 x 10/100 Base-Tx, 4 x 10 Base-T1L
Standards	IEEE 802.3 for 10 Base-T, IEEE 802.3u for 100 Base-TX,
LAN bypass	Yes
T1L Communication	
Ports	4 x 10 Base-T1L
Standards	IEEE802.3cg
Transmission Distance	1000 m (max.)
Connector	3-pin Spring Clamp
Cable Type	Shielded Twisted Pair (STP), 18 AWG ~ 24 AWG
Power	
Reverse Polarity Protection	Yes
Input Range	12 ~ 48 V_{DC}
Consumption	2.5 W (max.)
Mechanical	
Casing	Metal
Dimensions (mm)	44 x 172 x 139 (W x L x H)
Environment	
Operating Temperature	-25 ~ +75 ℃
Storage Temperature	-40 ~ +80 ℃
Humidity	10 ~ 90% RH, Non-condensing

SNR Quality Detection

The NSM-2402-T1L supports SNR (Signal-to-Noise Ratio) quality detection. Users can easily and visually monitor cable status through the indicator LEDs during factory wiring.



SNR Quality and LED Status Table:

LED Status	SNR Status
Turn on	Good quality
Blink 3 times in 1 second	Normal quality
Blink 2 times in 1 second	Bad quality
Turn off	No device connected / Communication failed

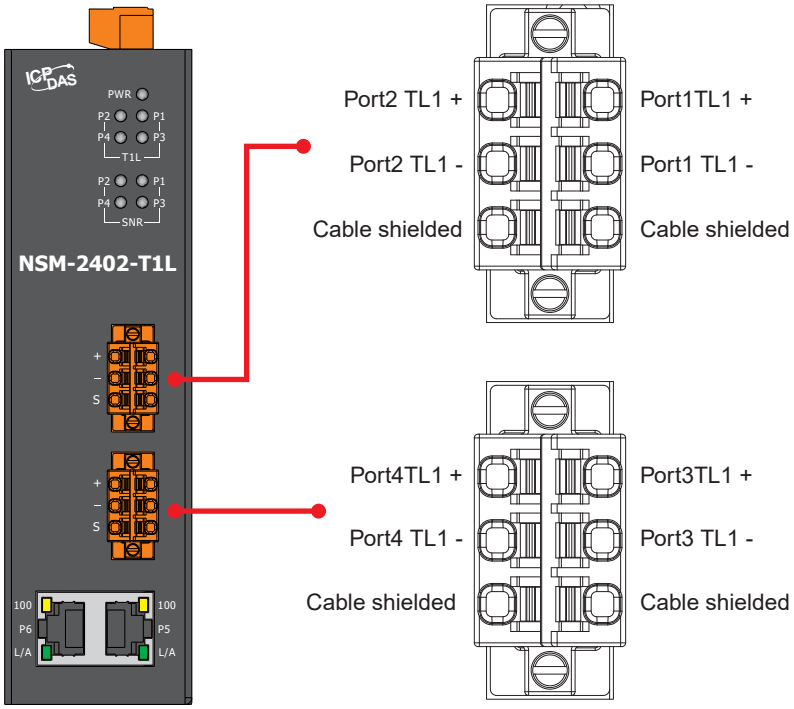
T1L Communication Distance and Quality

The communication distance and quality of T1L depend on the type of cable used. The recommended cable material is twisted pair (shielded) with an AWG range of 18 to 24. When the cable is thick and well-shielded, optimal communication performance can be maintained over distances of up to 1000 meters. For example,

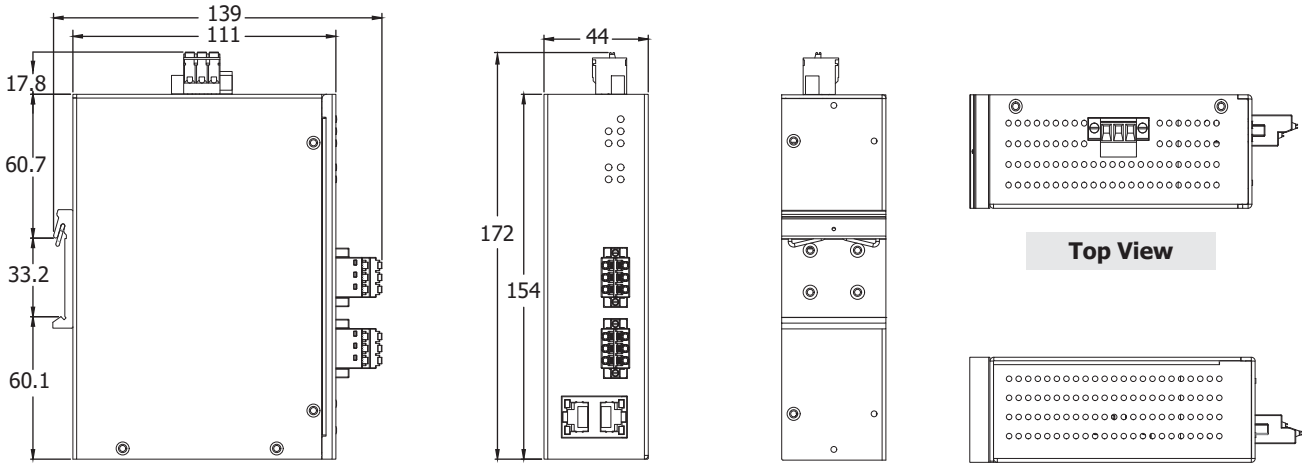
AWG 18 twisted-pair (shielded) cable:
The communication distance can reach up to **1000 meters**, such as with the 82836 HELUKABEL.
AWG 24 Ethernet (non-shielded) cable:
The communication distance is approximately **500 meters**.

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Pin Assignments



Dimensions (Units: mm)



Ordering Information

NSM-2402-T1L CR	Unmanaged 2-port 100 Mbps and 4-port T1L Single Pair Ethernet Switch (RoHS)

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