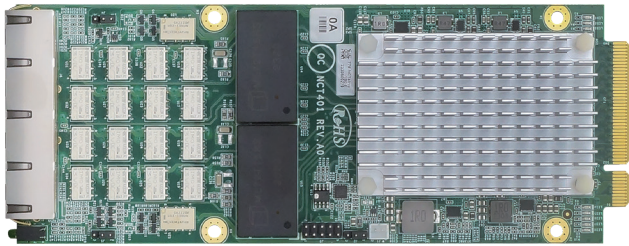# NCT401

▶ Features

- 1x Intel® XL710-BM1
- 4x 10GbE RJ45 Ports
- Two Pairs Gen3 Bypass
- Support VMDq, SR-IOV, DDP, DPDK

RJ45 | **Bypass** | **Efficacy**

▶ Introduction

AEWIN NCT401 Network Expansion Module is built upon Intel® XL710-BM1 LAN Controller and Intel X557-AT4 PHY, featuring 4x 10GbE RJ45 ports and two pairs of Gen3 bypass. SR-IOV functionality is enabled to offer DMA access for virtual machines, as well as DPDK enabled drivers for enhanced packet forwarding performance.
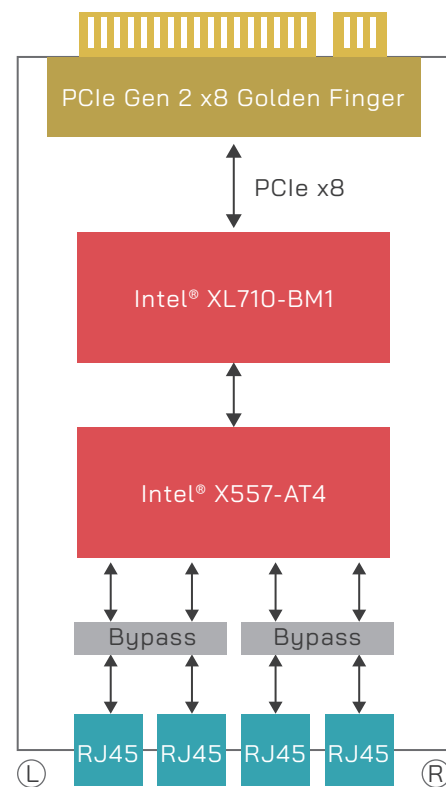
▶ Specification

Platform	
Form Factor	AEWIN Expansion Module
LAN Controller	1x Intel® XL710-BM1
PHY	1x Intel® X557-AT4
Features	VMDq, SR-IOV, DDP, DPDK
Ethernet Port	4x 10GbE RJ45 Ports
Bypass	Two Pairs Gen3 Bypass
Bus Type	PCIe Gen3 x8
Mechanical	Dimension(W x D x H): 74 x 194 x 29 mm

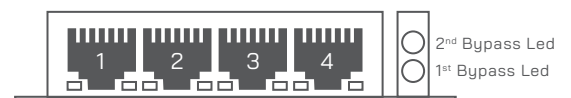| Environmental	
Operating Environment	Temperature: 0-45°C(32-113°F) Humidity: 20-90% RH
Storage Environment	Temperature: 0 -70°C(14-158°F) Humidity: 5-95% RH @ 55°C
OS Support	Windows, Linux, FreeBSD

▶ Order Information

NCT401AL	Expansion module with 4 RJ45 10GbE ports, Intel XL710-BM1 LAN Controller & X557-AT4 PHY, W/O bypass
NCT401BL	Expansion module with 4 RJ45 10GbE ports, Intel XL710-BM1 LAN Controller & X557-AT4 PHY, two pairs Gen 3 bypass

▶ Block Diagram

PCIe Gen 2 x8 Golden Finger

PCIe x8

Intel® XL710-BM1

Intel® X557-AT4

Bypass | Bypass

Ⓛ RJ45 RJ45 RJ45 RJ45 Ⓡ

▶ LED

2nd Bypass Led
1st Bypass Led

LED	State		Description
Left LAN LED (LNK/ACT)	Green (Blink)	🟩	Active
	Off	⬜	No connection
Right LAN LED (Speed)	Green	🟩	1Gbps data rate
	Yellow	🟧	10Mbps data rate