Product Brief

intel + **DELL** Technologies

Intel® Ethernet Network Adapter I226-T1

Ultra-compact Ethernet adapter supporting Performance PCs and workstations needing bandwidth beyond 1GbE

Key Features

- Low power, low cost
- Single-port 10/100/1000/2.5 GBASE-T(X) Copper
- Ultra-compact footprint
- Ventilated bracket
- Environmentally friendly
- Lead free and low halogen
- PCIe 3.1 support (5GT/s)
- Distance up to 100 meters

Overview

The Intel® Ethernet Network Adapter I226-T1 is ideally suited for personal computers and workstations used for enterprise, gaming, and home networks. These systems require more bandwidth than ever before. This ultra-compact, easy-to-integrate PCIe 3.1 x1 adapter, is a cost-effective networking solution for speeds up to 2.5GbE. The I226-T1 is also designed with a ventilated bracket, for increased efficiency and reduced power consumption.

Packed with performance optimization capabilities, the I226-T1 includes advanced interrupt-handling features to reduce CPU overhead. Combining interrupt-handling features with intelligent filtering, ordering, and directing packets to specific queues and cores, enables load-balancing network traffic flows to improve throughput in multi-core platforms.

Based on the Intel® Ethernet Controller I226-LM, this versatile networking solution supports 2.5Gbps, 1Gbps, 100Mbps and 10Mbps network speeds without the need to overhaul existing cabling infrastructure. Simplifying technology transitions with autonegotiation between port speeds provides maximum flexibility.

Features	Description
General	
RJ45 connection	▪ Compatibility with cable lengths up to 100 meters using CAT5e, CAT6, or CAT6A.
PCI Express 3.1	▪ 5GT/s support for x1 width (Lane).
Support for multiple network operating systems	▪ Enables broad deployment for different applications.
IEEE 802.3 autonegotiation	▪ Automatic link configuration for speed duplex and flow control.
IEEE 802.3x and IEEE 802.3z compliant flow control support with software-controllable Rx thresholds and Tx pause frames	▪ Local control of network congestion levels. ▪ Frame loss reduced from receive overruns.
Multiple Queues: 4 Tx and Rx queues per device	▪ Network packet handling without waiting for buffer overflow providing efficient packet prioritization. ▪ Actual number of queues will vary depending upon software implementation.
Tx/Rx IP, SCTP, TCP, and UDP checksum offloading (IPv4 IPv6) capabilities	▪ Lower processor usage. ▪ Checksum and segmentation capability extended to new standard packet type.
Power Management	
Active State Power Management (ASPM)	▪ Optionality Compliance bit enables ASPM or runs ASPM compliance tests to support entry to LOs.
Full wake up support	▪ Advanced Power Management (APM) support – (formerly Wake on LAN). ▪ Advanced Configuration and Power Interface (ACPI) specification v2.0c.
ACPI register set and power down functionality supporting D0 and D3 states	▪ Power-managed speed control lowers link speed/power when highest link performance is not required.
MAC Power Management controls	▪ Power management controls in the MAC/PHY enable the adapter to enter a low-power state.
Power Management Protocol Offload (Proxying)	▪ Enables the system to remain at low system power state while the adapter handles predefined ping or keep alive messages.
Stateless Offloads and Performance Features	
Preboot Execution Environment (PXE) Support	▪ Enables system boot via the LAN (32-bit and 64-bit). ▪ Flash interface for PXE 2.1 image.
TCP/UDP, IPv4 checksum offloads (Rx/Tx)	▪ Offloading capabilities and improved CPU usage. ▪ Extended Tx descriptors. ▪ Checksum and segmentation capability extended to new standard packet type.
Transmit Segmentation Offloading (TSO) (IPv4, IPv6)	▪ Increased throughput and lower processor usage.
Low-Latency Interrupts	▪ Based on the sensitivity of incoming data, the controller can bypass the automatic moderation of time intervals between the interrupts.
Receive Side Scaling (RSS) for Windows	▪ Up to four queues per port.
Support for packets up to 9.5KB (Jumbo Frames)	▪ Enables faster and more accurate throughput of data.

Technical Features

Operating Temperature	0 °C to 55 °C (32 °F to 131 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Storage Humidity	Maximum: 90% non-condensing relative humidity at 35 °C
LED Indicators	LINK (solid) and ACTIVITY (blinking) LED color (green = 2.5Gbps; yellow = 1Gbps; Off=100 Mbps or 10Mbps)

Intel Regulatory

FCC Class B for World-Wide EMC/EMI	Commercial or residential usage
Safety	UL 62368-1 and CAN/CSA C22.2 No. 62368-1-14 - Audio/video, information and communication technology equipment Part 1: Safety requirements
	European Group Differences and National Differences according to EN 62368-1:2014
RoHS-compliant	Complies with the European Union directive 2011/65/EU and its amendments (e.g. 2015/863/EU) to reduce the use of hazardous materials.

Adapter Features

Data Rate Supported Per Port	2.5/1GbE and 100/10Mbps
Bus Type/Bus Width	PCI Express 3.1 x1
Interrupt Levels	INTA, MSI, MSI-X
Hardware Certifications	FCC B, UL, CE, VCCI, BSMI, CTICK, KCC
Controller	Intel® Ethernet Controller I226-LM
Bracket	Full-height bracket installed. Low-profile bracket included in package.

Power Consumption

Link Speed / Traffic	Typical Power
10Mbps	.5 W
100Mbps	.6 W
1GbE	1 W
2.5GbE	1.4 W

Physical Dimensions

Dimension	68.7mm x 65.3mm

Product Order Codes for PowerEdge

Description	SKU	DPN	Intel MM#
I226-T1 (FH)	Factory installed: TBA Customer kit: TBA	KXH4R	99CDFV
I226-T1 (LP)	Factory installed: TBA Customer kit: TBA	0XDX9	99CDFT

Dell Tech Backing Information

Standard one-year warranty.

To see the full line of Intel Ethernet Network Adapters visit www.dell.com or contact your Dell Technologies sales representative.