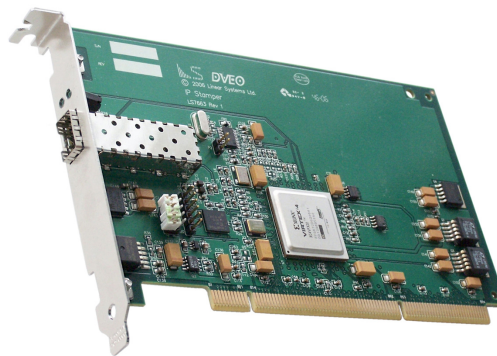


# IP Stamper™

**PCI-X Interface Card Time Stamps  
Incoming Ethernet Frames And  
Monitors the Quality of Video  
Transmission Over an IP Network**



## Features

- Time stamps incoming Ethernet packets
- Measures jitter and other timing parameters of network packets
- Accuracy of 10ns, which exceeds the MPEG-2 standard
- Supports IP Encapsulated MPEG-2
- Gigabit Ethernet Support
- SFP (small form factor pluggable) network Ethernet interface
- PCI-X Bus interface
- Unicast and multicast support
- Field upgradeable firmware
- Transmission rate higher than 350 Mbps
- Includes drivers for Windows 2000, 2003, XP, Vista and Linux

## Applications

- Video over IP stream analyzer
- Network analyzers
- Test instrumentation

## Overview

IP network monitoring is crucial in high value networks. Particularly important for video networks is jitter. Jitter tolerances need to be understood so that video can be delivered without frame drops. Jitter is the inaccuracy of arrival times of packets.

In order to characterize value added video networks it is not sufficient to look at transport stream timestamps. Ethernet frames must be time stamped in order to understand the network timing.

IP Stamper™ is a PCI-X (Peripheral Component Interconnect Extended) interface card capable of accepting a Gigabit Ethernet input stream. It will time-stamp the input packet payload immediately on arrival in a unique way using our proprietary time stamping technology.

Packets and timing can be stored on a local disk. Third party application software can use the IP Stamper to analyze packets timing, and to show network problems.

The card can also be used for configuring networks such as IGMP joins.

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# IP Stamper™

## Capabilities

- **Supports IP encapsulated MPEG –2**  
Supports third party applications with encapsulated MPEG-2 over UDP, RTP and RTSP
- **Time-stamps incoming Ethernet frame**  
Time-stamps incoming Ethernet frames with an accuracy of 10ns, which exceeds the MPEG-2 standard and is more accurate than software timestamps
- **SFP interface**  
Support for SFP modules with copper, single mode, multi-mode fiber interfaces
- **Multicast and Unicast support**
- **Transmission rate higher than 350 Mbps**
- **Field upgradeable firmware**  
Firmware of the card can be field upgraded by the host computer once the card is installed

## Development Software

- Drivers for Windows 2000, 2003, XP, Vista and Linux
- Linux® Master Driver SDK
- IP Stamper Test Bed

## Hardware Requirements

- Gigabit Network
- PCI X Bus slot in host computer
- SFP module

## Ordering Information

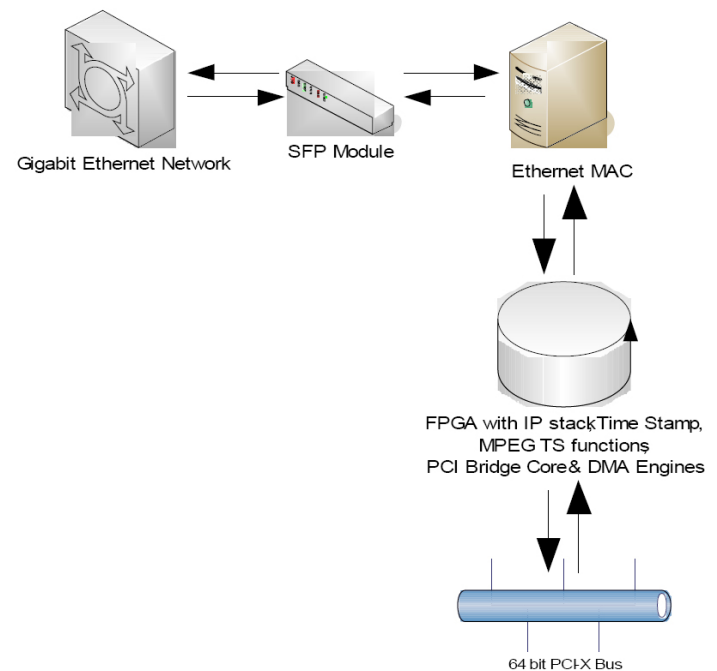
IP Stamper

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## Specifications

<b>Dimensions</b>	
Width:	5 in (19cm)
Length:	7.5 in (7.5cm)
Thickness:	0.9 in (2.4cm)
<b>Typical Weight</b>	4.1 oz (0.25 lbs)
<b>Input/Output Connectors</b>	SFP
<b>Data Input/Output</b>	Gigabit Ethernet
<b>Typical Power</b>	3.3V@1.1A
<b>Operating Temperature</b>	0 to 55° C
<b>Operating Humidity</b>	To 90%, Non-condensing
<b>Status LED Indicators</b>	Link, Activity
<b>Bus Interface</b>	64 bit 66 MHz PCI-X
<b>RoHS Compliant</b>	Yes

## System Diagram



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