

# IEEE1394 Bus Analyzer

## LA-1394CX



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### OUTLINE

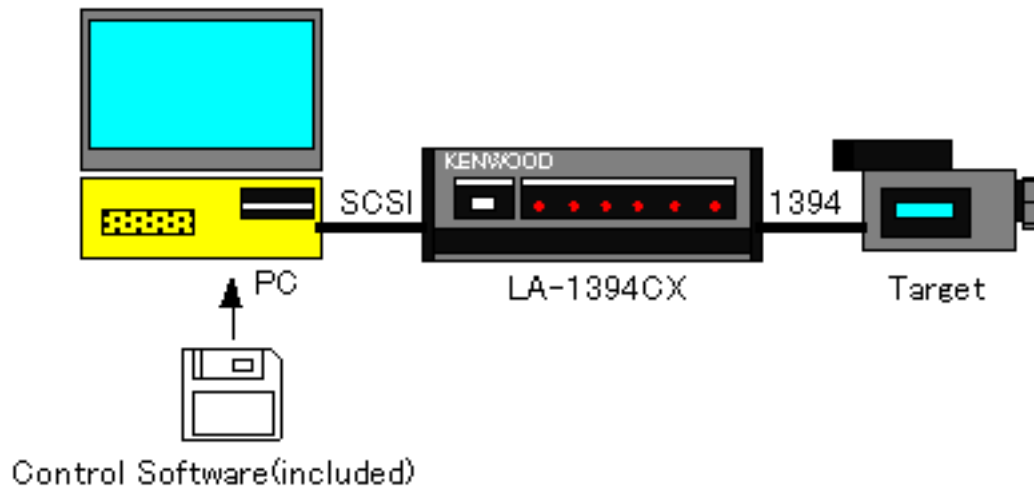
The LA-1394CX Bus Analyzer allows monitoring of the IEEE 1394 interface, and the transmission of various types of packets.

It also features a display function, which lets you display a received packet after analyzing. The LA-1394CX is useful not only for developing semiconductor, but also for debugging the hardware and software of IEEE 1394 equipment. With supplied Windows application software, even novice users find it easy to operate.

### FEATURES

Complies with the IEEE 1394 standard  
 Kenwood Developed High Speed Bus Data Storage Engine.  
 Fire Trigger Detectors, enables configuration of an optimum circuit block combination.  
 Enables detection of various types of trigger signals.  
 Receive Bus Traffic Data at up to 400 Mbps.  
 High visibility display function and abundant filter function.  
 Copy-paste function for captured data.  
 Easy data transfer via Windows based software.  
 It is possible to packet transmission/reception during packet capturing

## SYSTEM ENVIRONMENT



- E Personal Computer
- @ OS: Windows 95/98
- @ RAM: 32 Mbytes or more
- @ Hard Drive Space: 100 Mbytes or more
- E Monitor 1024x768 dot or more
- @•@•@•@•@ 65536 colors or more
- E SCSI-2 interface Card, Cable
- @ (Adaptec AHA-2940 Ultra .Slim SCSI-1460 recommended)

## OPTIONS

- @•E ES-LA30 (AV/C Protocol analyzed option software)
- @•E ES-LA10 (SBP-2 Protocol analyzed option software)

## FUNCTIONS

## **Packet Capturing Function**

Trigger point on capture memory and captured packet size is variable.

Capturing Contents: Isochronous Packet, Asynchronous Packet (11), Cycle Start Packet, PHY Packet (3), Acknowledge Packet, PHY/LINK Start, Subaction Gap, Bus Reset

Maximum capture memory size: 20 Mbytes

## **Asynchronous packet Transmission/Reception Function**

- EMaximum packet size: 1024 bytes

- ETransmission/Reception Buffer Size: 1 Mbytes

Packets that can be transmitted:

Write Request for data Block, Write Request for data Quadlet, Read Request for data block, Read Request for Quadlet, Lock Request

.When the data is requested from the connected node, the response data is automatically returned. The type of response data and the returning timing are selectable at any time.

## **Block Pattern Setting Method:**

Constant, Increment, Decrement, Direct input, Text file readout, Paste from clipboard

## **Monitoring Function**

A packet transmitted and received can be monitored without capturing up to 200 events can be monitored.

## **Isochronous Packet Transmission/Reception Function**

- EArbitrary channel setting is possible.

- ETransmission Packet Size: 1024 bytes

- ETransmission/Reception Buffer Size: 1 Mbytes

Transmission Pattern Setting Method:

Constant Increment, Decrement, Direct input, Text file readout,

Paste from clipboard

## **Bus Bandwidth Analyzing Function**

Use status can be displayed in bargraph and numeric (percentage).

- ERate of isochronous packets in the isochronous cycle (Channel)

- ERate of each packet for isochronous, asynchronous and cycle start

- ESharing rate of each node

## **Captured Packet Display Function**

Waveform display and list display are available.

Display Items:

Sample number, time, Packet, Destination ID, Destination Offset, Source ID, Speed, Iso Channel, Ack Code, Header 4 bytes, etc.

## **Trigger Function**

Possible with the following conditions:

PHY Packet, PHY ID, Destination ID, tcode, data length, Isochronous Channel, Combination of byte count and data pattern, Bus reset.

### **Filter Function**

By filtering the captured data, the required data will be displayed.

Display Item

PHY packet, PHY ID, Gap Count, Destination ID, Source ID, Transaction Label, Retry Code, Priority, tcode, extended tcode, data length, Isochronous Channel, tag, sy, header CRC, PHY/LINK State

## **SPECIFICATIONS**

**Complied standard** IEEE1394--1995 / P1394a

### **Electrical specifications**

#### **1394 Interface**

- @IEEE1394 Connector(6 Pin) 3 ports
- @Transfer speed 98.034 / 196.603 / 393.216 (Mbits/sec)

#### **Cable power**

- @Output voltage range 0~42VDC
- @Maximum output current (each port) 1.5A(4.5A in 3 port total)

#### **Cable power input terminal**

- @Input voltage range 0~42VDC
- @Maximum input current 4.5A

#### **PC interface**

- @Standard SCSI-2
- @Connector SCSI connector
- @Connector number 1(terminater built-in)
- @Maximum transfer speed 10Mbytes/sec

#### **Power source**

- @Maximum output current 2A
- @Input voltage range 100~240VAC
- @Input frequency 50/60Hz

**Dimensions (mm)** 284(w)~99(H)~300(D)

**Weight** 3.9Kg

## **Accessories (supplied)**

