



**Multimedia and Control  
Networking Technology**

**MediaLB Analyzer V2.0.X**

**Start-up Guide**

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**MOST<sup>®</sup>**  
Media Oriented Systems Transport



## Legend

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# MediaLB Analyzer V2.0.X

## Start-up Guide

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## Document History

Version	Date	Section	Comment on Changes
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## 1 Preface

### 1.1 Intended Use

This SMSC product is intended to be used for developing, testing or analyzing MediaLB and MOST based multimedia products and systems by persons with experience in developing multimedia devices.

The operation of this SMSC product is only admitted with original SMSC devices, e.g., provided power supply.

Do not interfere in the product's original state, otherwise user safety, faultless operation and electromagnetic compatibility is not guaranteed.

### 1.2 Scope of Delivery

The MediaLB Analyzer V2.0.X is delivered with:

- MediaLB Monitor
- Active-Pod:  
3-pin Active-Pod for low speed MediaLB Debug Header
- Power supply
- Cables (USB, Active-Pod)
- Installation CD including OptoLyzer Suite, online help and drivers
- User manuals

Check your shipment for completeness.

If you have any complaints direct them to [sales-ais-europe@smc.com](mailto:sales-ais-europe@smc.com) (Europe and Asia) or to [sales-ais-usa@smc.com](mailto:sales-ais-usa@smc.com) (America). Providing the delivery note number eases the handling.

## 1.3 Information Sources

- **MediaLB Start-up Guide (this document):**  
It describes in a brief manner how to connect the hardware components of the MediaLB Analyzer V2.0.X and how to install the OptoLyzer Suite supporting MediaLB signal/data analysis and verification.
- **MediaLB Analyzer Hardware Manual [1]:**  
It describes the MediaLB Monitor and the 3-pin MediaLB Active-Pod.
- **Online Help of the OptoLyzer Suite [2]:**  
It describes the software usage in detail.
- **Media Local Bus Specification [3]:**  
It defines the MediaLB Physical-Layer and Link-Layer Protocol.

## 1.4 Term Definitions

For better understanding of the following chapters, this section provides explanations of special terms, used within this manual.

Term	Definitions
Active-Pod	Part of the MediaLB Analyzer. It is a small housing that is directly connected to the MediaLB Debug Header of the DUT. It buffers the MediaLB signals and transfers them to the MediaLB Monitor without compromising the signal integrity.
DUT	Device Under Test
INIC	Intelligent Network Interface Controller
MediaLB	Media Local Bus
MediaLB Monitor	Part of the MediaLB Analyzer. It converts the incoming serial data from the Active-Pod to parallel data suitable for feeding it via USB to the Host PC.
Trigger	A Trigger defines when to capture data from MediaLB.

Table 1-1: Term Definitions



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## 2 Introduction

The MediaLB Analyzer V2.0.X is a tool defined by a combination of hardware and software components designed to allow observation and visualization of MediaLB data in a comfortable way.

It consists of the following main modules:

- Active-Pod—functioning as interface to the MediaLB port of the Device Under Test
- MediaLB Monitor—converter box transferring MediaLB data received from the Active-Pods via USB2.0 to a Host PC
- OptoLyzer Suite—supporting analyzing and visualizing of MediaLB data

The MediaLB Analyzer V2.0.X supports 3-pin MediaLB interfaces configured for speed grades of 256Fs, 512Fs or 1024Fs.

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## 2.1 Features

The MediaLB Analyzer V2.0.X features the following:

- Active-Pods
  - Support for OS81050/OS81082 low speed MediaLB Debug Header
  - Support for 3-pin MediaLB Interfaces up to and including 1024Fs
  
- MediaLB Monitor
  - Streaming capable USB2.0 High Speed interface
  - MediaLB Clock-Activity, Speed, and Lock Detection
  - 256 MByte RAM for data buffering
  - Compact housing
  
- MediaLB support of the OptoLyzer Suite
  - MediaLB Link-Layer protocol check
  - Visualization of MediaLB RAW data
  - Composition of MediaLB RAW data to INIC Port Messages
  - Disassembly of Port Messages
  - Storage of captured MediaLB data
  - Various pre-defined as well as fully customizable filter and trigger definitions
  - MediaLB Lock detection
  - MediaLB speed detection (256/512/1024Fs)
  - MediaLB frame and physical channel counter

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## 2.2 PC System Requirements

The following environment (minimum) is recommended for installation:

- Pentium IV Class PC with hyper threading technology or dual core processor with 2.66 GHz
- 2 GByte RAM
- 1 GByte free disk space
- USB2.0 High Speed
- Windows XP (SP2 or SP3) or Windows 2000 (SP4) operating system

## 2.3 Licensing

The MediaLB Analyzer V2.0.X is licensed by a license number stored in the MediaLB Monitor. Without a proper hardware license, certain features are disabled.

## 3 Setup

### 3.1 Installation of OptoLyzer Suite

To run the MediaLB Analyzer V2.0.X you need to have OptoLyzer Suite V1.4.2 installed at least. If you run an OptoLyzer Suite version older than V1.4.2 you need to de-install the program. In this case, start installation of MediaLB Analyzer V2.0.X with step 1. If you already run OptoLyzer Suite V1.4.2 or a newer version, start installation with step 3.3.

1. Check, if MediaLB Monitor ((3), see Figure 3-1) is not connected to the PC/laptop. If it is connected, disconnect the device.
2. Install the OptoLyzer Suite using the installation CD. For further information refer to one of the *OptoLyzer G2 Start-up Guides [4]*. Proceed with the hardware installation described in section 3.2.

### 3.2 Connect the MediaLB Analyzer

Figure 3-1 gives an overview of the entire MediaLB Analyzer V2.0.X and depicts how the single components are arranged.

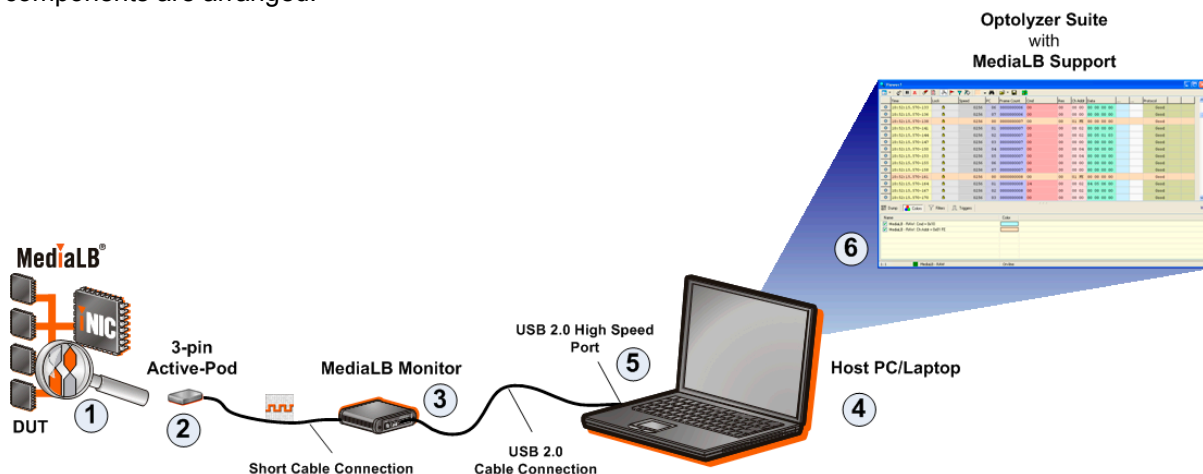


Figure 3-1: MediaLB Analyzer V2.0.X Overview

The steps are based on Figure 3-1 and explained from left to right.

1. Connect the Active-Pod (2) to the MediaLB port of the DUT (1) by directly plugging it onto a dedicated MediaLB Debug Connector. For the pin assignment, refer to the delivered *MediaLB Analyzer Hardware Manual [1]*.
2. Connect the Active-Pod (2) and the MediaLB Monitor (3) via the delivered cable.
3. Connect power supply to the MediaLB Monitor (3).
4. Connect MediaLB Monitor (3) and Host PC/laptop (4) with the USB cable part of the delivery.
5. Proceed with the USB driver installation described in section 3.3.

**Notice** The USB connector on the PC has to be a **USB 2.0 High Speed connector (5)**. Check it in the Device Manager. If the Device Manager shows an **Enhanced** USB Host Controller, the connector has USB 2.0 High Speed capability.

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## 3.3 USB Driver Installation

After connecting the MediaLB Monitor (3) to the USB 2.0 High Speed Port (5) of the PC/laptop (4) the hardware wizard opens with the recommended installation preselected.

1. Follow the steps. After clicking **Finish**, the hardware wizard opens again (recommended installation preselected) for continuing installation.
2. Follow the steps.
3. Click **Finish**. The hardware is installed.

## 3.4 Work with the MediaLB Feature of the OptoLyzer Suite

1. Start OptoLyzer Suite (6).
2. Press F1 for accessing the online help.
3. Add a MediaLB USB device like it is described in the online help.  
Hint: Use the 'Search' dialog and type: *Add a new MediaLB USB device*.

**Notice** For starting your work quickly and most efficient, refer to the following sections of the online help. Again, use the 'Search' dialog and type the following:  
*MediaLB Level1* > this section describes the creation of MediaLB Transmission Events.  
*Predefined MediaLB Workspace* > this section explains you how to access predefined tabs for filtering on specific signals/data.

All further issues around the MediaLB support of the OptoLyzer Suite are explained by the context sensitive online help. Additionally, use the 'Search' dialog to access specific topics.

## Appendix A: Further Reading

1. *MediaLB Analyzer Hardware Manual*, <http://www.sm-sc-ais.com>
2. *Online Help of the OptoLyzer Suite*
3. *Media Local Bus Specification*, <http://www.sm-sc-ais.com>
4. *OptoLyzer G2 Start-up Guide [4]*, <http://www.sm-sc-ais.com>

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