MUSIC
SEMICONDUCTORS

MU9C8358L/8338A Evaluation Kit

APPLICATION BENEFITS

- Evaluation platform for MU9C8358L or MU9C8338A Ethernet Filter Interface

- Allows user to become familiar with the operation of the Ethernet Filter.

- Includes an easy to use GUI and sample C-code

DISTINCTIVE CHARACTERISTICS

- Easy to use hardware uses the parallel port of any PC

- Easy to use Windows Interface allows LANCAM database to be viewed

- Hardware includes a RJ-45 connector and PHY, which allows network traffic to be received and filtered.

- A socketed MUSIC LANCAM is included


Figure 1: MU9C8358L Evaluation Board

GENERAL DESCRIPTION

The MUSIC MU9C8358L/8338A Evaluation Kit is a hardware and software platform which allows either chip to be fully evaluated. It has an 8358L or 8338A Ethernet Filter, MUSIC LANCAM, 10/100 Mb PHY, RJ-45 connector, and a standard parallel port interface. A socket is provided which will allow the user to use the Low Voltage version LANCAM supplied with the kit or any device in the 3.3v LANCAM-L family. The board is plugged into a PC parallel port using the 25-pin connector that is provided. Four 38-pin high-density logic analyzer connectors are available which will allow all of the 8358L/8338A, LANCAM, and MII signals to be inspected. A 110V power adaptor is also provided. Figure 1 shows the 8358L version of the kit.

A Windows software tool is provided that will allow the user to quickly inspect the LANCAM database. Entries that have been added to the database can be viewed in their raw 64-bit LANCAM form. Additionally, the four 16-bit segments are decoded and shown as an individual 48-bit Ethernet address, Time-stamp, Port ID and Permanent bit.

Some C-code files are also included that will allow the user to initialize the Filter and LANCAM. Once initialized, real network packets can be received through the RJ-45 connector. The user may add or delete entries, increase the Time-stamp value, and purge entries using the software registers or the INCR hardware pin. The user may also view the data that is available through the Result and Tag port(s). Figure 2 shows the CAMView Software tool that is supplied with the kit.
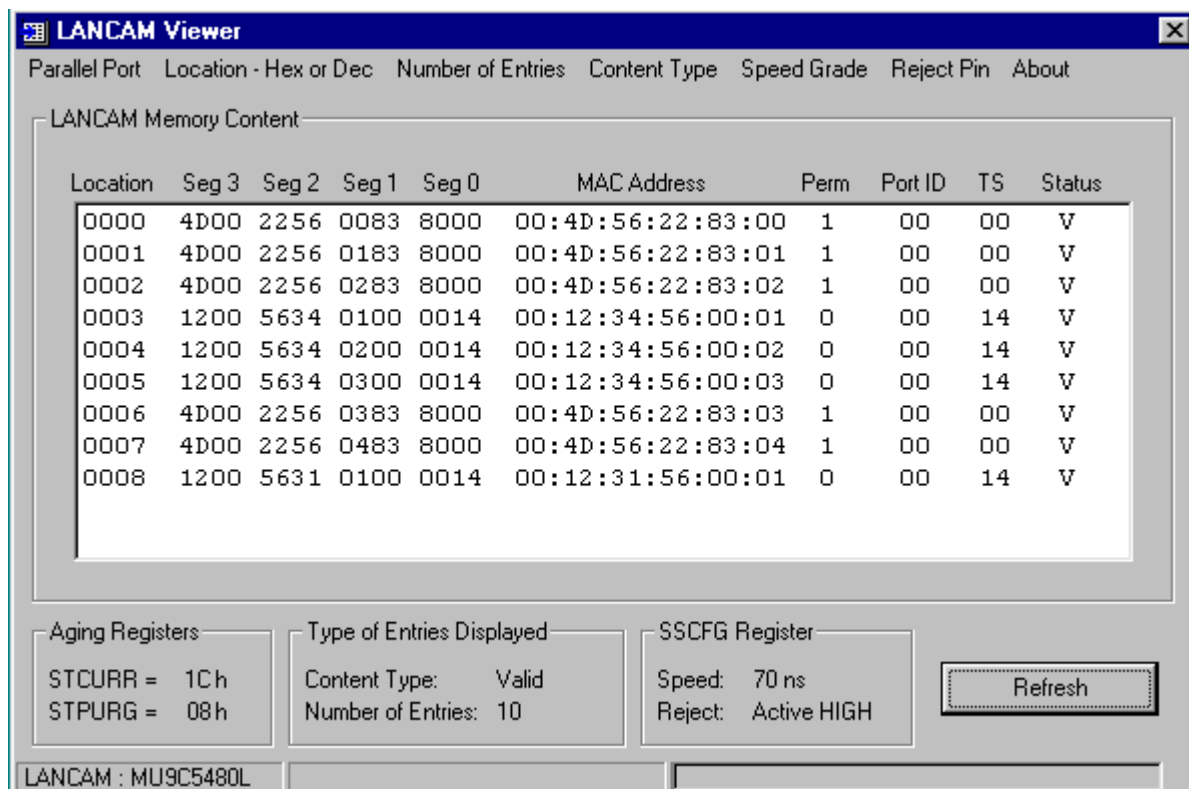
Figure 2: CAMView LANCAM Viewer Software Tool

The Evaluation kit will allow the user to develop initialization code and software maintenance routines. The simple C functions and C software program skeleton provided allows the kit hardware to be accessed using a standard C compiler. Due to the simple parallel port interface, the user may also develop their software using other software languages by performing simple parallel port accesses. A typical user would use the kit to familiarize themselves using the supplied C code. This would involve initializing the board, transmitting packets to the board, and viewing the LANCAM database using the software GUI.

EVALUATION KIT CONTENTS

- 6 inch x 6 inch Hardware PCB
  - 8358L or 8338A device fitted
  - LANCAM socket containing MU9C3480L
- 25-pin to 25-pin parallel port connector cable
- 110v to 5v 2.5A power supply
- Users Manual
- Software CD
  - CAMView Windows GUI
  - C functions and program skeleton
  - User Manual and other documentation in PDF format
  - Schematics in Orcad Version 7.2 format
  - FPGA Verilog code

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