

# Wireless Projector Adapter Reference Board

## Diagnostic Program

- Specification -

Ver. 0.0

Oct.12 2004

Wireless and Visual Communications Co., Ltd.

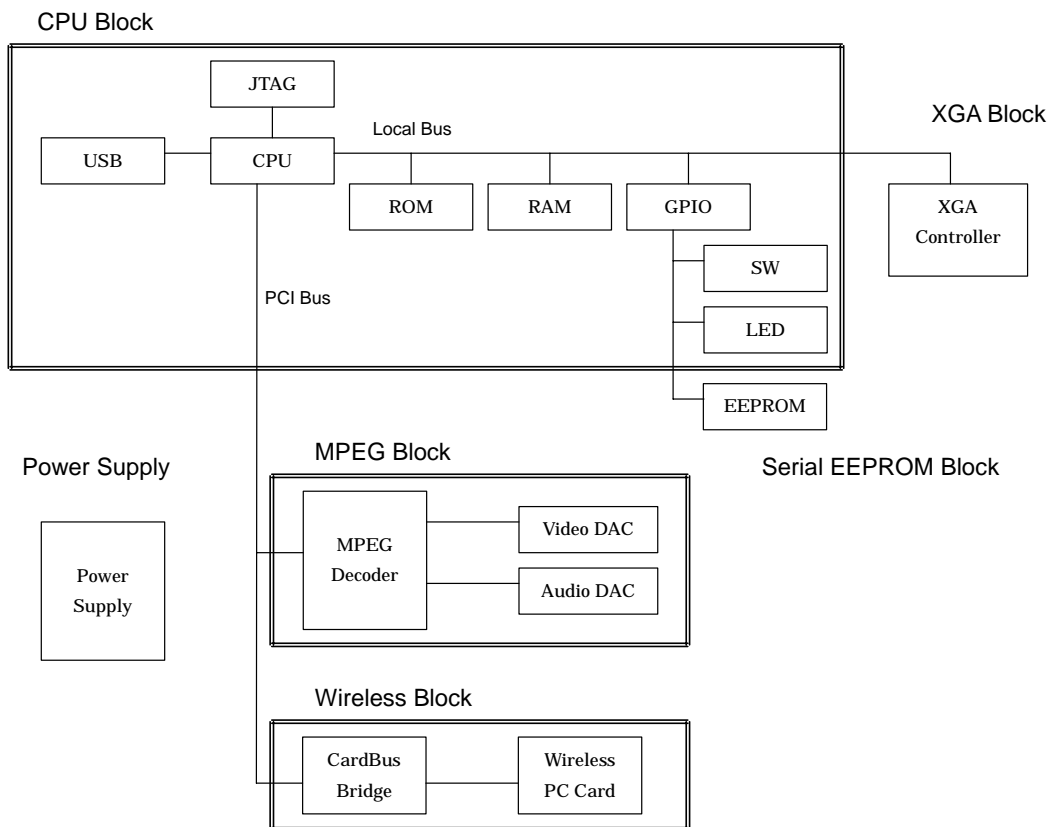
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## 1. Introduction

This document describes “Diagnostic Program” for “Wireless Projector Adapter Reference Board”.

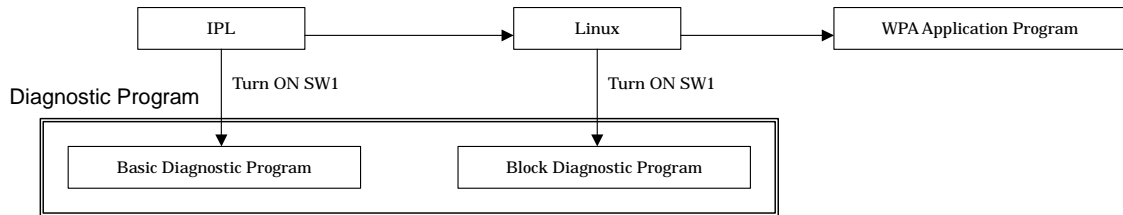
Wireless Projector Adapter Reference Board (WPA) consists of some functional blocks as follows. The Diagnostic Program tests these blocks.



**figure 1 Block Diagram**

### 1.1 Software Block Diagram

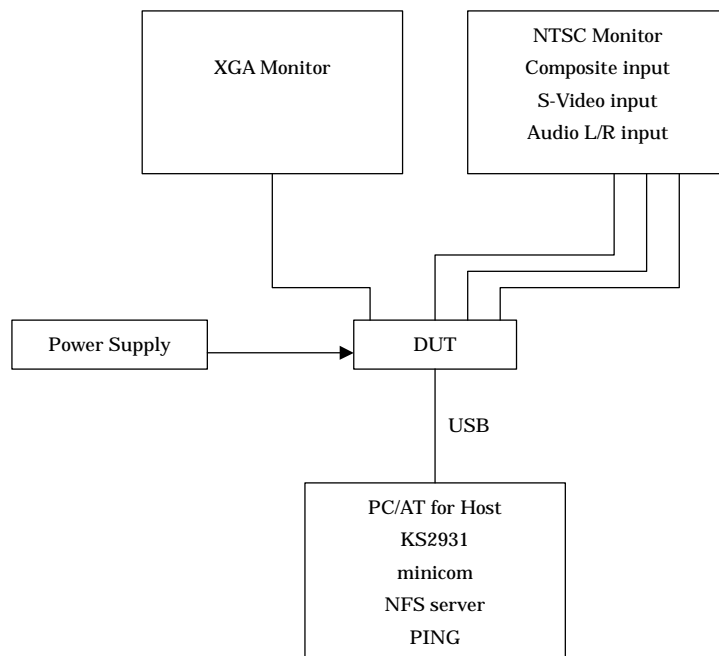
The Local Bus or SDRAM can not be tested under Linux OS. And MPEG Block or WLAN Block is difficult to test without OS. Thus, Diagnostic Program consist of two procedure as follows.



**figure 2 Software Block Diagram**

### 1.2 Equipments

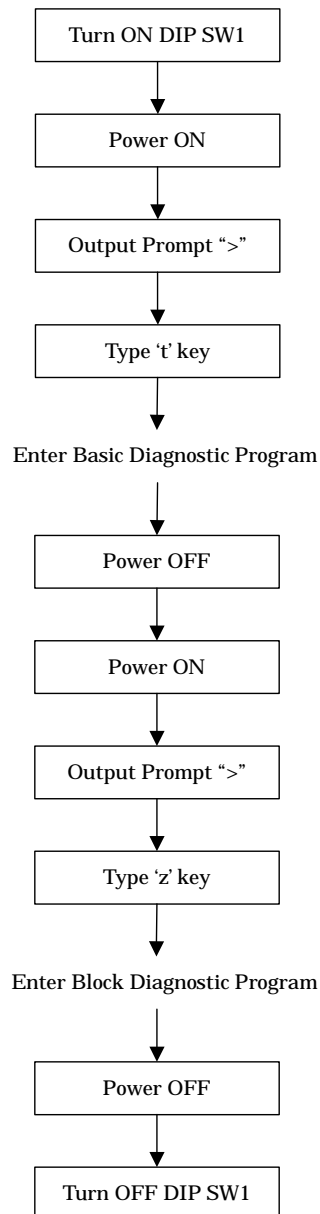
For Diagnostic Program, the following devices are needed. The PC for host is used for controlling DUT and storing MPEG files for test.



**figure 3 Equipments**

### 1.3 Diagnostic Procedure

First of all, CP2101 (USB-UART bridge) must be initialized. Thus, when the diagnostic program start, the program must wait to input some command by user. The process of booting diagnostic program must be progressed as follow.



**figure 4 Booting Procedure**

**table 1 Diagnostic Procedure**

No.	Type	Diagnostic	Check Point
1	Basic	Prompt Display	Power 3.3V Power 1.5V 20MHz Xtal 27MHz OSC Local Bus Mode Block CP2101 SM501 DIP SW
2	Basic	Local Bus	Data Bus Address Bus Control Bus
3	Basic	PCI Bus	Power 1.8V PCI Bus PCI1510 VWEB
4	Basic	Flash ROM	Flash ROM version
5	Basic	SDRAM	SDRAM
6	Basic	RTC	RTC Xtal
7	Block	Wireless	TPS2211 KS2931
8	Block	VGA	SM501 SDRAM for SM501
9	Block	SW	SCAN SW RES SW INIT SW
10	Block	LED	LINK LED ACT LED
11	Block	EEPROM	EEPROM
12	Block	MPEG	VW2010 SDRAM for VW2010 CS4954 CS4332

## 2. Basic Diagnostic Program

The “Basic Diagnostic Program” should be a part of IPL.

### 2.1 Prompt Display

### 2.2 Local Bus

#### 2.2.1 Address Bus

#### 2.2.2 Data Bus

#### 2.2.3 Control Bus

### 2.3 PCI Bus

### 2.4 Flush ROM

### 2.5 SDRAM

2.6 RTC



### 3. Block Diagnostic Program

The “Block Diagnostic Program” should be an application program of Linux OS.

3.1 Wireless

3.2 VGA

3.3 SW

3.4 LED

3.5 EEPROM

3.6 MPEG

#### 4. Change Log

Date	Version	Changes
Oct.12 2004	0.0	Initial