MT9S6NNV01-GEVK

MT9S6NNV01 LVDS Adapter Board User's Manual

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EVAL BOARD USER'S MANUAL

Evaluation Board Overview

The LVDS Adapter Board is designed to demonstrate the Onsemi sensors that support an LVDS output interface. This Adapter board is intended to plug directly into the Demo3 system through a AGB2N0CS Demo2 to Demo3 Adapter board. The onboard De−serializers receive a LVDS serial data stream and transform it into a 10−bit wide parallel data

Features

- Clock input
  - Default – 27 MHz crystal oscillator
  - 22 MHz crystal oscillator
  - Optional Demo3 controlled MClk
- One LVDS (RJ45) connector allowing connection to a Demo head board with serial only interface.
- Interfaces with the Demo3 BaseBoard
- External 5V Power Supply Jack.

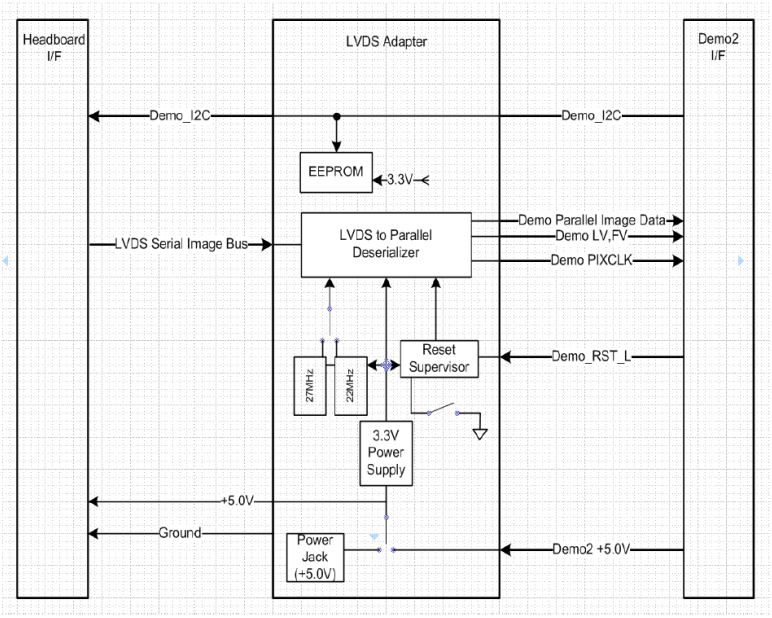

Figure 2. Block Diagram of MT9S6NNV01−LVDS Adapter Board

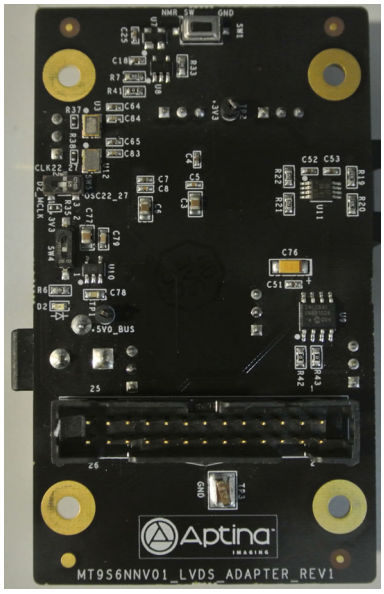

Figure 1. MT9S6NNV01 LVDS Adapter

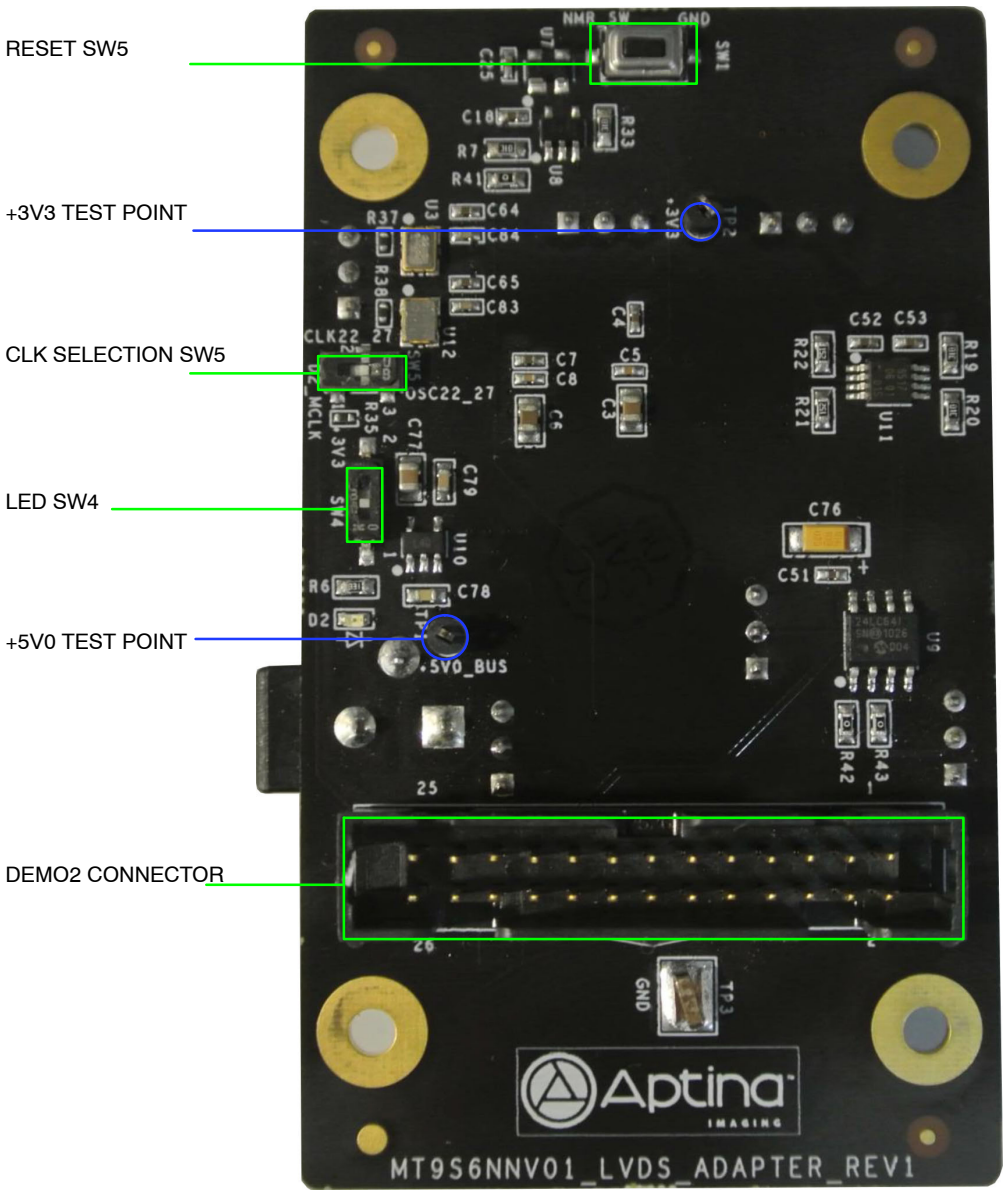

Figure 3. Top View Of LVDS Adapter Board

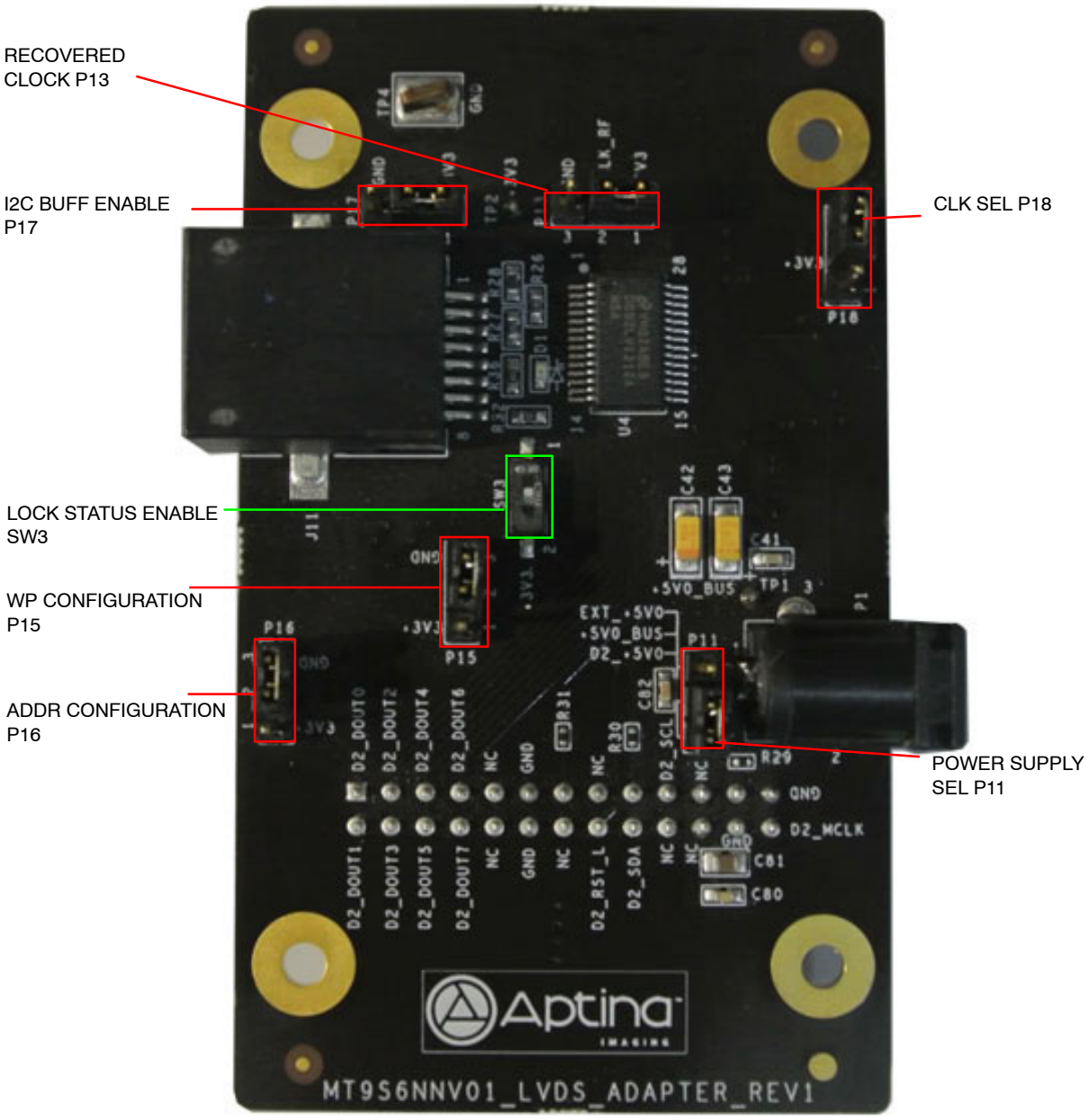

Figure 4. Bottom View Of LVDS Adapter Board

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
P11	+5V0	2−3 (Default)	Set to the +5.0V external supply
		1−2	Set to the +5.0V supply from Demo3 Baseboard
P13	Recovered Clock	1−2 (Default)	Set to +3.3V: Selects Rising Edge
		1−2	Set to GND: Select Falling Edge
P15	EEPROM Configuration	2−3 (Default)	Write Operations Enabled
		1−2	Write Operations Inhibited
P16	EEPROM Configuration	2−3 (Default)	A0 is low
		1−2	A0 is high
P17	I^2C Buffer Enable	1−2 (Default)	I^2C Buffer Enabled
P18	Clock Selection	2−3 (Default)	Activates 22MHz oscillator
		1−2	Activates 27MHz oscillator
		Open	27MHz and 22MHz Tri State. Use Demo3 Clock

Table 2. LED FUNCTION DESCRIPTION

LED	Functional Block	Description
D1	LVDS Lock	de−serializer locked to LVDS input stream Orange LED
D2	+3.3V supply	+3.3V is up − Green LED
D3	+5.0V supply	+5.0V is up − Green LED

EEPROM Switch

These switches set up the EEPROM address (0xA8)

Table 3. EEPROM SWITCHES

SW3	Power Strapping Options
SW3.1	Pin 2 connected to Pin 3. Default Position
SW3.2	Pin 5 connected to Pin 6. Default Position

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support
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