

Board Description

The basic block diagram of the Orion and Maia ADD2 cards is illustrated in Figure 3. Each block is briefly explained below.

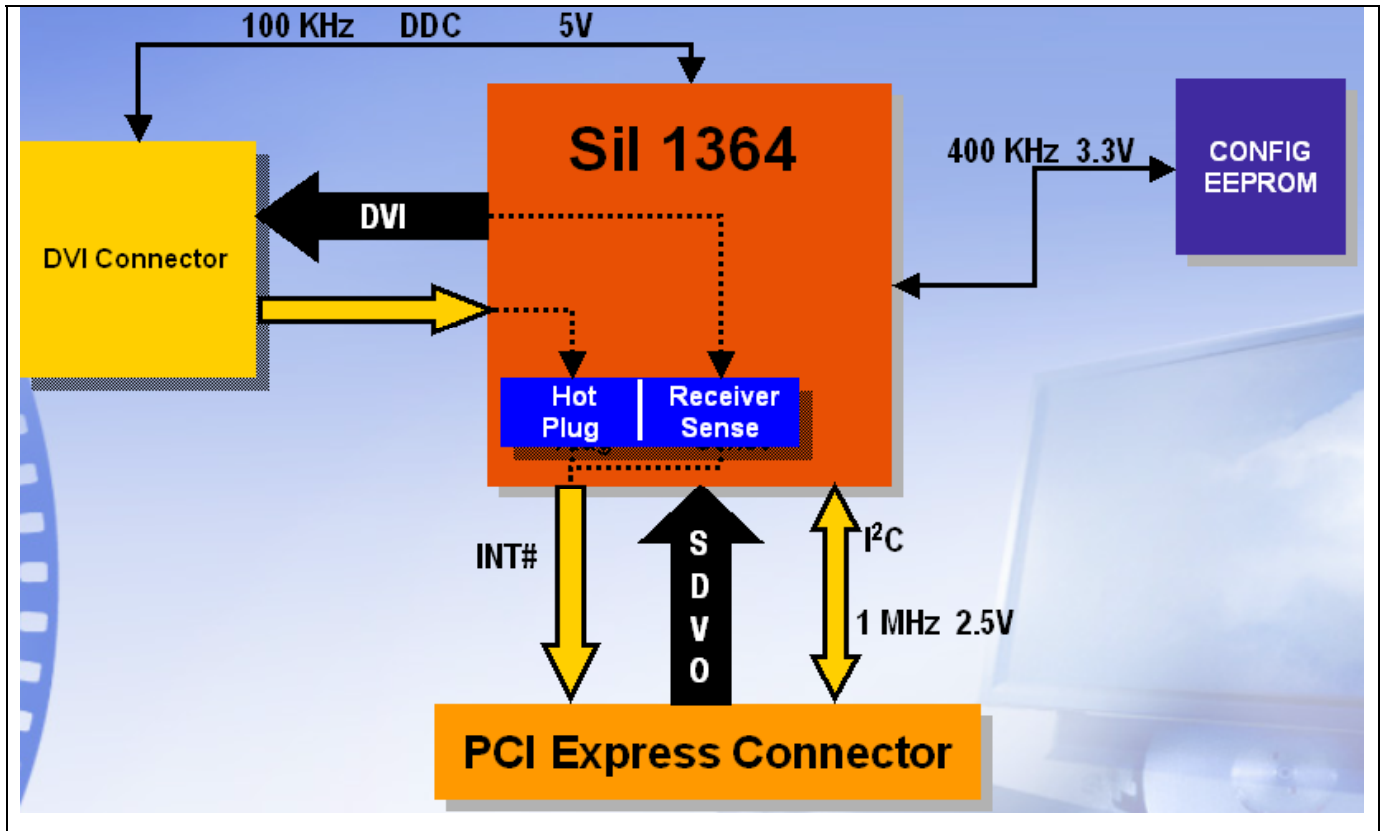


Figure 3. Functional Blocks of ADD2 Card

PCI-Express Connector:

The PCI-Express slot passes all SDVO signals including the 1MHz-speed 2.5V I²C bus from the Grantsdale G chipset and SDVO signals, and returns INT# (Serial Interrupt) from the Sil 1364 Tx. Both ADD2-N and ADD2-R have x16 length PCI-Express card-edge connectors.

Configuration EEPROM

The Configuration EEPROM stores vital configuration header information for the Grantsdale G driver to recognize and configure the Sil 1364 Tx as an SDVO-based DVI device. The EEPROM I²C bus from the Sil 1364 Tx operates at 400kHz at 3.3V. The Sil 1364 Tx has internal 3.3V pull-up resistors for this bus; therefore, no external pull-up resistors are stuffed. All ADD2 cards are shipped with a pre-programmed EEPROM installed. Refer to the Bill of Materials for additional EEPROM information.

Sil 1364 Tx and I²C Circuits

The Sil 1364 Tx is the device that links the Grantsdale G platform to a DVI flat panel display. Grantsdale G reads the EDID of a connected display, or retrieves configuration information from the EEPROM, by way of the I²C pass-through of the Sil 1364 Tx. This pass-through interface operates at a 100kHz rate and provides the required level shifting from the 2.5V Grantsdale G interface to either the 3.3V EEPROM interface or the 5V DDC interface. The Sil 1364 Tx also provides an interrupt signal to the Grantsdale G to signal a display attach/detach event using the DVI Hot Plug function.