F4 EVM User's Guide

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REVISIONS

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01	2014-06-16	The first issue.	Jason
02	2015-04-20	Modified the file format.	Bavin
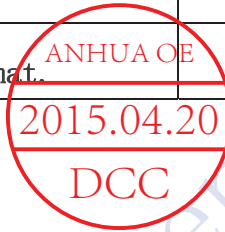
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1. EVM interfaces and functions introduction.

（1）. Interfaces：

① DC Input：Connect to 12V（8A）DC power supply；

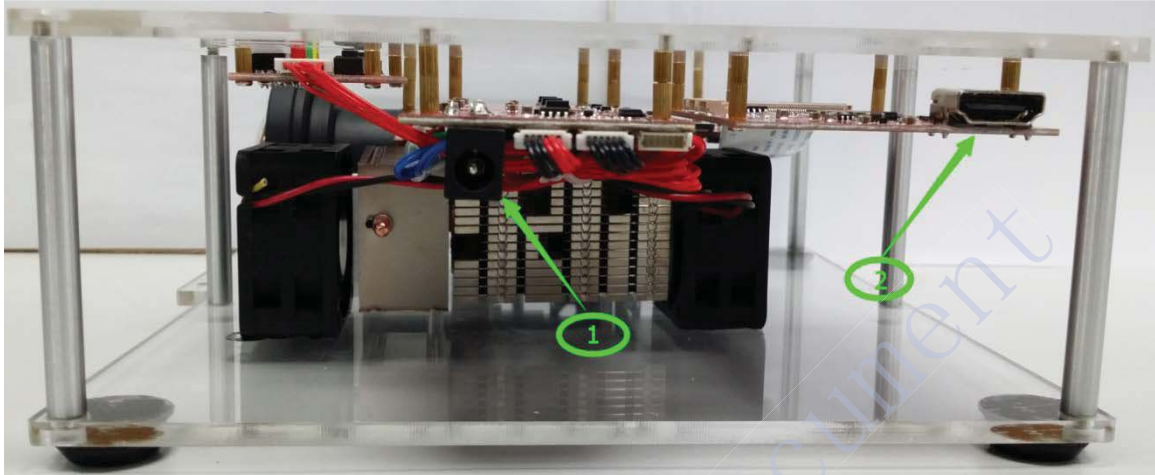② HDMI Input：Connect computer and EVM with HDMI Cable，The EVM supports resolution up to 1280 * 800.

Figure 1 Input interfaces

（2）. Function keys and LED indicators：

③ System switch：The system will run when this switch is pushed down, otherwise the system shutdown；

④ Function key 1: Press it to flip the image along the long side；

⑤ Function key 2: Press it to flip the image along the short side；

⑥ Function key 3: Press it to switch overlap or no overlap；

⑦ System running status LED (Orange): LED is extinguished when the system is running, or LED lights；

⑧ Power status LED (Green): LED flashing after power supply is connected；
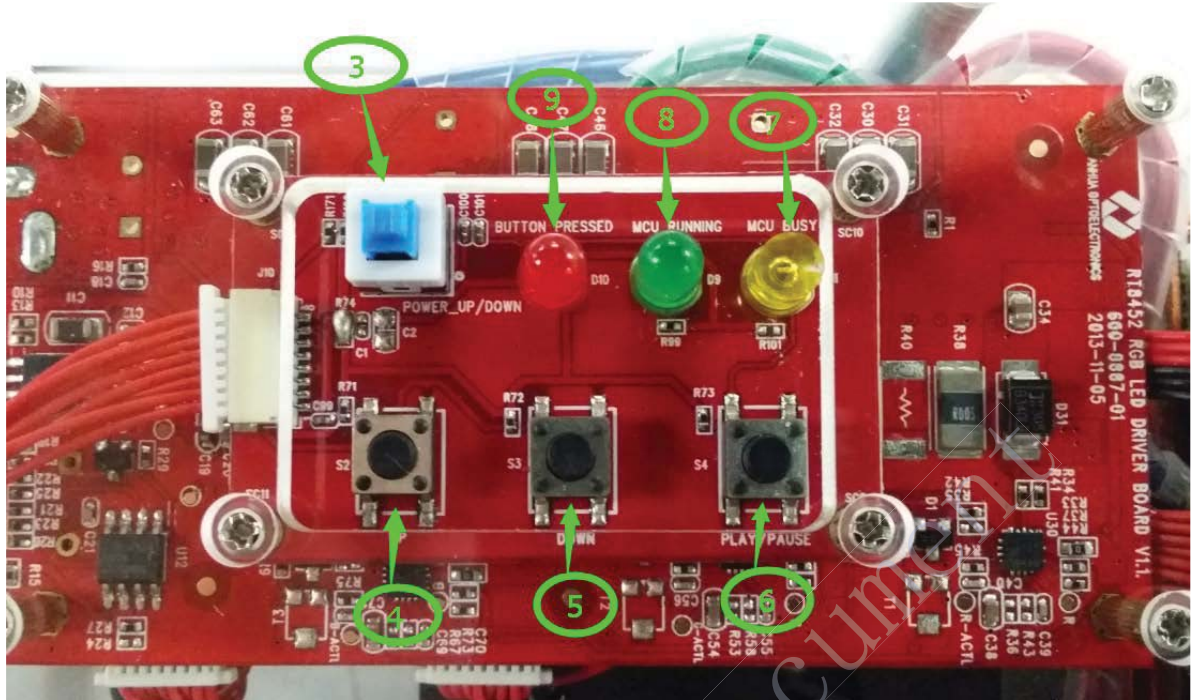
⑨ LED（Red）：Unused.

Figure 2 Function keys and LED indicators

⑶. Focus lever

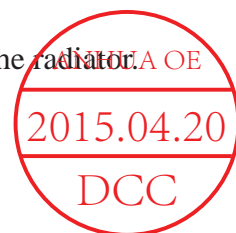⑩ Focus lever: By toggling the lever (up or down) to adjust the focus.

Figure 3 Focus lever

⑷. Radiator and Cooling fan:

⑪ Radiator: Help to dissipate the heat emitted from LED;

⑫ Cooling fan: Help to dissipate the heat emitted from LED to the radiator.
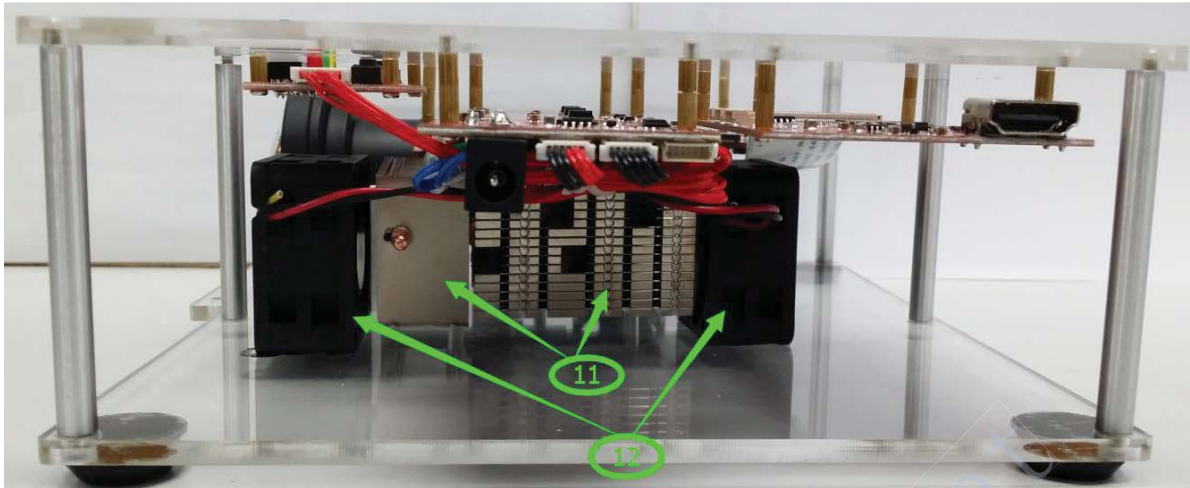
Figure 4 Radiator and Cooling fan

(5). DPP6401F I2C interface:

⑬ DPP6401F I2C interface: DPP6401F as a I2C slave device, it can be connected to the external MCU or DLP Composer for command and control.

In figure 5, ⑬ is the I2C interface connected to DPP6401F, the Pin definition as the following table.

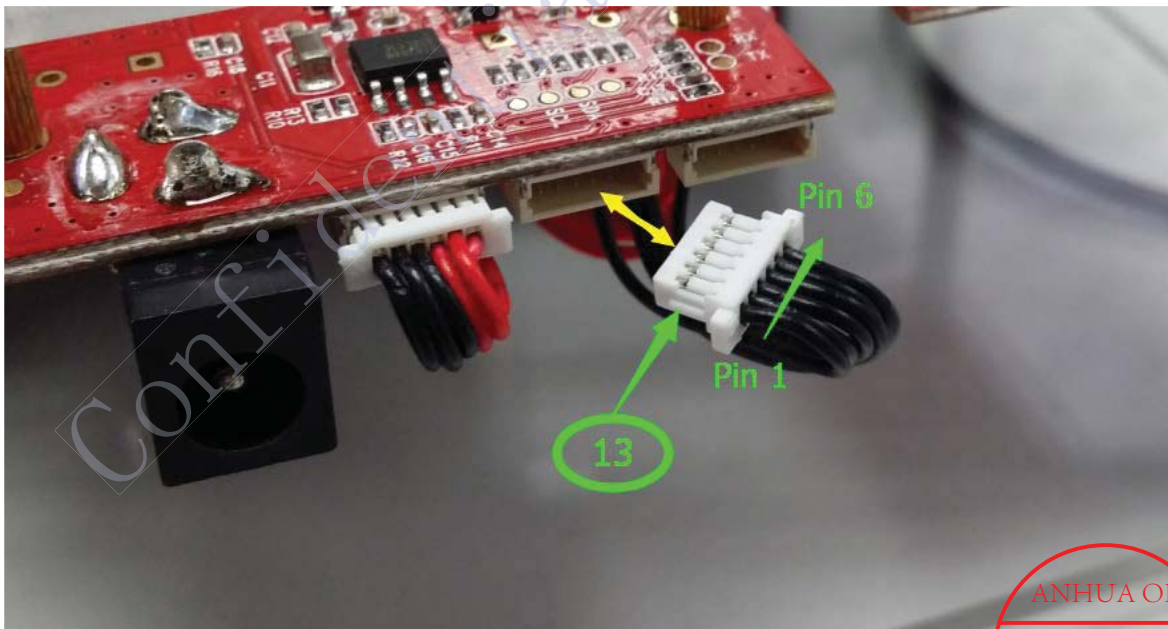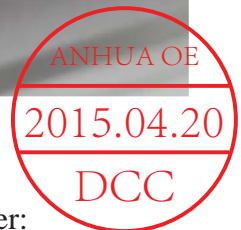| Pin Number	1	2	3	4	5	6
Signal Name	5V	DLP_ON	SCL	SDA	GND	NC

Figure 5 I2C Interface

(6). DeVaSys USB-I2CIO connection between DPP6401F and DLP Composer:

DeVaSys USB-I2CIO board is a device that converts USB signal into I2C signal, it is used to implement communication between DPP6401F and DLP Composer.

J4 is the I2C interface on DeVaSys USB-I2CIO board. Connect SCL, SDA and GND

respectively between J4 and terminal ⑬ on figure 5, and then connect computer and DeVaSys USB-I2CIO board with USB Cable. Thus, the connection between DPP6401F and DLP Composer via DeVaSys USB-I2CIO, can be realized communication.
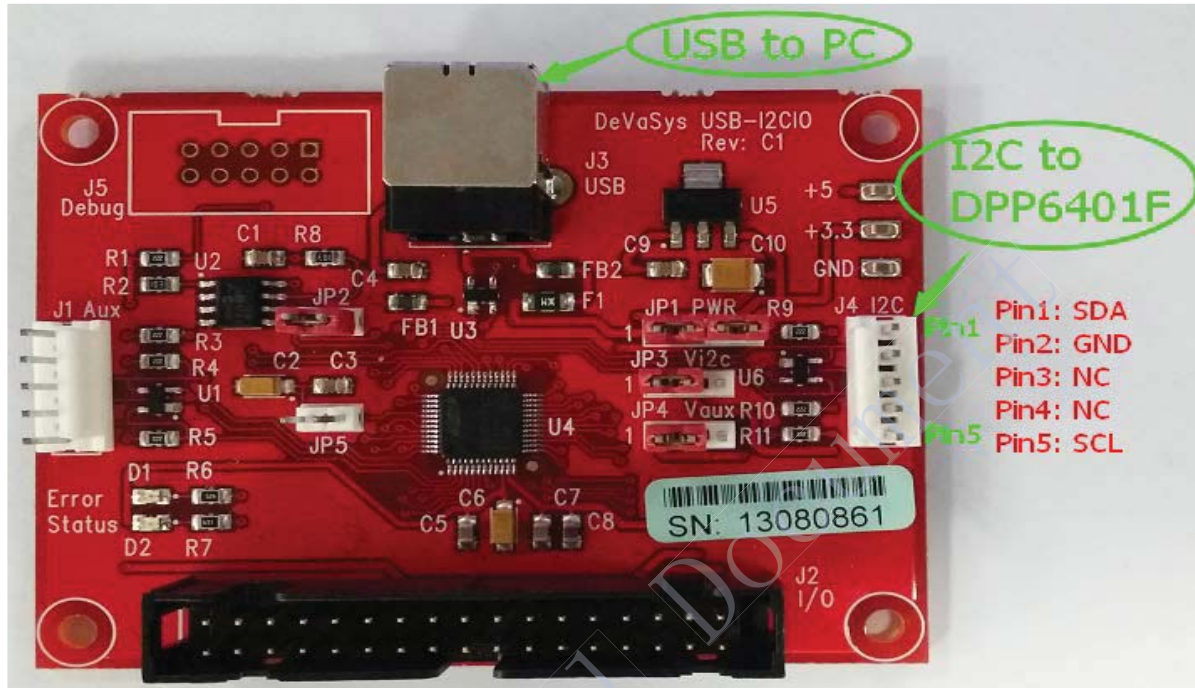

Figure 6 DeVaSys USB-I2CIO

2. Operating instructions.
⑴Connected to the power supply DC 12V/8A;
⑵Connect the computer and EVM with HDMI cable, and HDMI output resolution is set to 1280*800;
⑶Pushed down the system switch, after a few seconds, you can see the projection screen from EVM;
⑷Adjust the focus bar, until get a clear image;
⑸If you need to flip the image, press the function key 1or 2;
⑹If you need to switch overlap or no overlap, press the function key 3.

3. Notes.
⑴ EVM turning on process, please connect the power cord first and then press the system switch; turning off process, it should turn off the system switch first and then unplug the power cord.
⑵ When the system is running, make sure that the fan inlet has no obstructions, so as not to affect the cooling effect, thus affecting the EVM brightness and LED service life.