

C329-EVM User Manual

Release Note:

V1.0 9th January, 2011 First release

General Description

The C329-EVM is a self contained module that allows basic test and evaluation of the C329-UART and C329-SPI colour VGA camera header modules. The C329EVM transfers data to a PC and is powered by USB. The module consists of three connectors plus one programming socket.

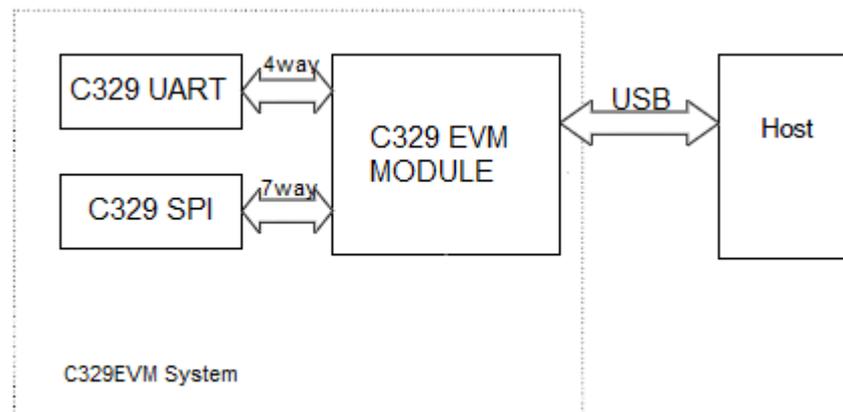


Figure 1 – System Block Diagram

Features

- Small Size, 30x55mm
- Connections to PC via USB interface
- Low Power Operation
- Self contained and powered by USB
- Simple to use
- Connection for C329UART and C329SPI modules.

System Configuration

Camera Header Socket

The C329EVM has two SIL connectors, one 4way for connecting the C329UART and one 7way for connecting the C329SPI.

USB connection

The C329EVM has a USB mini connector to allow connection to the PC with a standard USB mini cable.

EVM Electronics

The C329EVM contains an ARM CPU from ATMEL, along with a few support components. The EVM doesn't perform any image processing, it simply provides a USB bridge between the PC And C329 Header. The PC talks to the EVM and the EVM talks to the C329.

Board Images

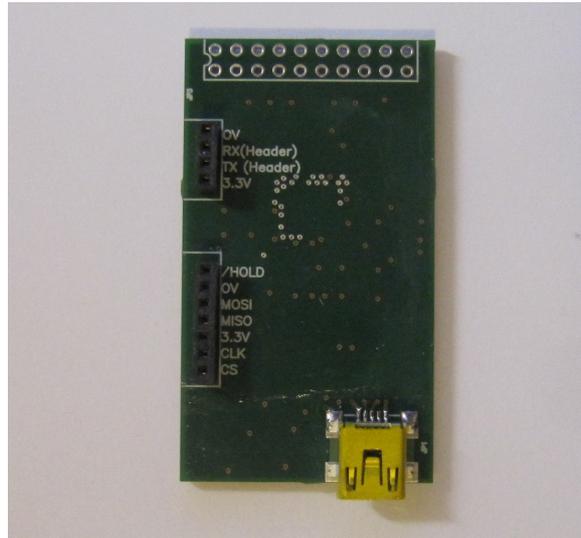


Figure 2 – C329EVM

Board With C329-UART

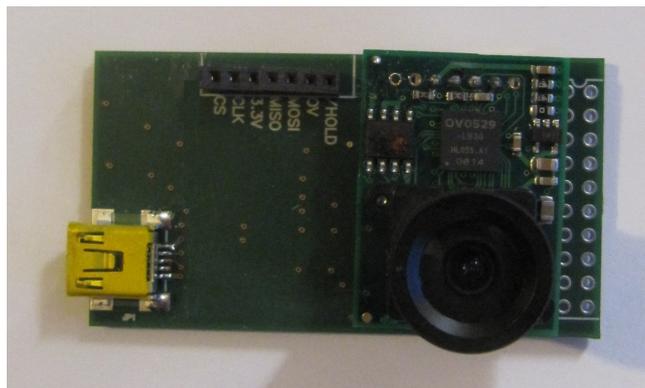


Figure 3 – C329EVM with C329-UART Module

Board With C329-SPI

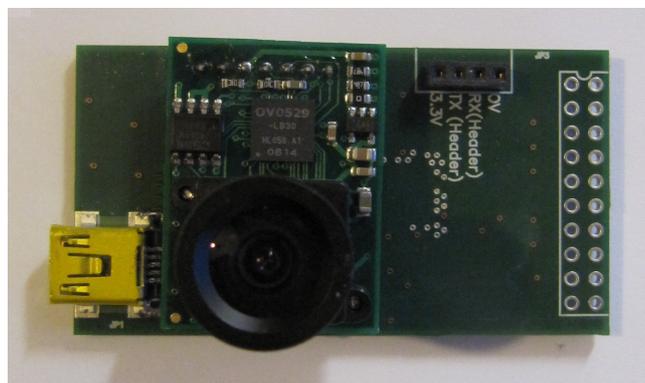


Figure 4 – C329EVM with C329-SPI Module

Connecting Modules and Power On / Off

The C329 EVM system is designed to work in conjunction with the EVM PC software.

First Install the PC software, and start it. Then connect the required header board as in Figure 3 or Figure 4. Then plug the USB Mini cable into the PC and Lastly connect the EVM to the USB mini cable. The EVM system requires around 1-2 second from connection to being registered by the PC's USB subsystem. If all is successful the PC software will indicate USB OK in a green box in the upper right hand corner of the window see Figure 5 below.

Remember to remove the USB mini connector from the unit before exchanging modules.

PC Software

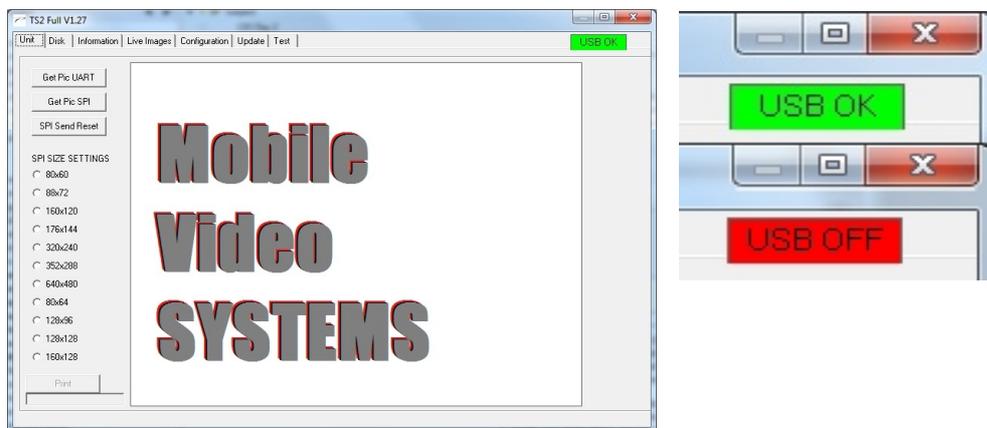


Figure 5 – PC software

Using The Software

When the EVM is connected and the connection indicator is showing USB OK on a green background, click on the “Get Pic UART” button for C329EVMBoard with UART header PCB and “Get Pic SPI” for the C329EVMBoard with SPI header PCB.

Please note the other tabs are used for software development, however the “Information” tab will allow EVM info to be read out i.e. CPU type and revision. The “Information” tab may also be used to read and modify the standard C329Header register settings. No translation is provided at the moment between register values and function, although there are tables in the respective manuals for the UART And SPI boards.

The “Test” tab allows EVM commands to be sent and responses to be displayed. As stated before this test function is intended for software development.

Installing PC Software

At the time of writing the USB drivers are not available for 64bit versions of windows. Please install the PC suit by double clicking on setup.exe then follow the installation instructions. If the software is installed in the default directory “C:\Program Files\C329EVM” the rest of the installation procedure will be simpler.

After installation please run “InstallDrivers C329EVM-32bit.bat” by **right clicking** and selecting “**Run as administrator**” if this fails you may have to do this manually.