

FAQ about the DLP[®] Pico[™] Projector Development Kit

1. *Where can I find documentation and schematics for the Pico Projector Development Kit?*

Information, documentation and schematics for the Pico Kit can be found at the website: www.dlpdiscovery.com/pico.

2. *What signal resolution can be sent into the Pico Projector Development Kit?*

The Pico Kit accepts 640x480 resolution. The chipset supports QVGA, HVGA and VGA but the DVI receiver on the Pico Kit only operates down to VGA resolution. HVGA, 480x320, clock frequency is below the DVI receiver specified range.

3. *How many bits per color channel are available on the Pico Projector Development Kit?*

R: effective bit depth is slightly better than 7 bits

G: effective bit depth is slightly better than 7 bits

B: effective bit depth is approximately 6 bits

Better bit depth is possible but comes as a tradeoff with brightness

4. *Can the Pico Projector Development Kit be directly connected to the PC?*

The Pico Kit is specifically designed to interface with the Beagle Board for two primary purposes:

- a. It enables embedded solution development and prototyping with an OMAP processor and a Linux OS.
- b. It is an engineering tool intended for development. It is not designed or intended to be a commercially available consumer electronic projector. There are companies releasing commercially available consumer electronic products based on the same DLP Pico Chip technology. More information about these products can be found at: www.dlp.com

The Pico Kit supports a video signal input format of DVI-D 24-bit RGB VGA resolution at 60Hz. The physical connector for video input on the projector is mini-HDMI type-C. The Pico Kit does not have extended display identification data (EDID) capability. Therefore, to physically connect a video source to the projector requires an interface to mini-HDMI type-C and if the source requires an EDID device that must be placed in the video path.

5. *I heard about the MSP430 port on the Pico Projector Development Kit, how can I use this?*

At this time, a limited set of MSP430 commands to access the DLP Pico Chip are available online at www.dlpdiscovery.com/pico. In an attempt to meet an extremely low price point, the cable for connecting to the MSP430 debug port is not contained within the kit. At this time, there is not a release date published for making this cable available.

6. *Where can I find out more information about the Beagle Board?*

Information about the Beagle Board is available at the following website:
<http://beagleboard.org/>.

7. *What is the best path to get started with the Pico Projector Development Kit and Beagle Board?*

Please visit the website <http://beagleboard.org/pico>. There are instructions showing how to verify the Beagle Board and Pico Kit hardware are functioning properly. A user can purchase video content on an SD card to do this or download Linux and load the video content to verify hardware functionality.

8. *What is the support path for the Beagle Board?*

The Beagle Board is supported by an open community of more than a thousand developers (<http://beagleboard.org/>). This group has enabled several versions of Linux and shared code through the open embedded community. OMAP Linux drivers are available to run many peripherals and regular improvements and additional functionality are made and shared on a frequent basis. Leveraging from these software resources, someone versed in Linux development can make quick progress on a customized application. There are experienced and respected members of the community who are willing and interested to work on “commissioned” projects for those looking for help. For customers interested in more customization, all the information required to redesign the beagle board is open source and available on the web site (schematics, BOM, drawings, etc). So there is a path to product and differentiation.

9. *What processors are on the Beagle Board?*

The processor on the Beagle Board is an OMAP 3530 which has two processors:
(1) 600MHz Cortex ARM and
(2) 450MHz C64x DSP.

In addition, the OMAP has 2D & 3D graphics acceleration.