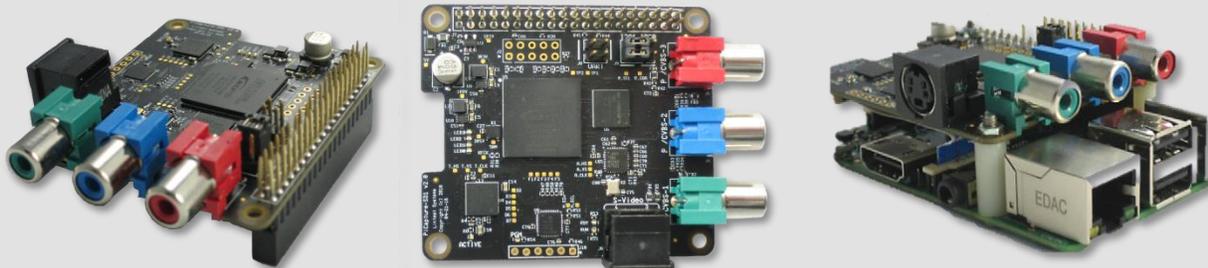


LINTEST SYSTEMS ANNOUNCES...

VIDEO CAPTURE USING THE RASPBERRY PI CAMERA PORT



Powered by a custom designed, high performance video processor, both the Standard Definition and High Definition versions of PiCapture allow all of the Raspberry Pi's CPU power to be used for your applications and not consumed by limited function, outboard USB devices. Packaged in a HAT⁽¹⁾ compatible form factor with a 40 pin GPIO feedthrough header means compact installations on a Raspberry Pi. Since PiCapture fully emulates the Raspberry Pi camera module, all software such as Raspivid, PiCamera and related applications are fully compatible. The robust design and rugged mechanical package makes PiCapture suitable for a wide range of applications including crucial ones for medical and industrial use.

(1) HAT = **H**ardware **A**ttached on **T**op

Two Versions:

- PiCapture SD1 for standard definition interlaced video (NTSC/PAL) from Composite, S-Video, and YPbPr Component
- PiCapture HD1 for high-definition progressive video from digital (HDMI/DVI), analog (YPbPr Component), and Computer (RGB) sources at 480p, 720p, and 1080p resolutions
- **Form Factor:** Raspberry Pi HAT compatible, Compute Module form factor upon request
- **High Speed Interface:** Raspberry Pi Camera port – MIPI CSI-2
- **Assured Compatibility:** Works with most Raspberry Pi boards (including 3.0) and standard camera software (raspivid, picamera, etc.)

Features at a Glance



FULLY EMULATES THE RASPBERRY PI CAMERA

MIPI CSI-2 interface means the Raspberry Pi GPU can be used to its fullest and the CPU is free for your own applications, not consumed with peripherals.



PIVIDEO PYTHON-BASED CONTROL SOFTWARE

PiVideo is used to control the PiCapture processor for:

- Automatic or manual video source selection
- Optional on-screen source indication
- Test mode control - B&W modes, solid color, and color pattern
- Firmware update utility



MULTIPLE WAYS TO COMMUNICATE WITH RASPBERRY PI

Jumpers for selecting UART, I2C1, I2C0 (or none) for maximum flexibility of Raspberry Pi GPIO



GET UP AND RUNNING FAST WITH ANY VIDEO SOURCE

PiCapture products are fully compatible with Raspberry Pi hardware and software so no special drivers required. Connect, power up, and run raspivid or your software, and capture video for any SD or HD source!

Application Areas

- ✓ Video streaming
- ✓ Video recording
- ✓ Machine vision
- ✓ Manufacturing
- ✓ Robotics
- ✓ Security and Surveillance
- ✓ Baby/child/pet monitors
- ✓ Healthcare (telemedicine)
- ✓ Traffic monitoring
- ✓ Astronomy/Astrophotography
- ✓ DVR/Media Center
- and more

PiCapture – Video Capture for Raspberry Pi

Product Brief



Key Specifications

	PiCapture SD1	PiCapture HD1	Features
Compatibility	Raspberry Pi 1 A+,B+ Raspberry Pi 2, 3	Raspberry Pi 1 A+,B+ Raspberry Pi 2,3	Requires 40 pin GPIO connector
Physical Dimensions	65mm x 56.5mm	65mm x 56.5mm	HAT form factor
Interface connectors	40 pin GPIO connector CSI-2 MIPI camera connector	40 pin GPIO connector CSI-2 MIPI camera connector	Pass-through header is provided
Power Requirements	5V @ 250mA	5V @ 300 mA	Supplied by Raspberry Pi
Supported Video Formats	Standard Definition Interlaced NTSC/PAL	480p 720p 1080p	SD1: De-interlaced and resampled to 640x480 HD1: 525p, 576p and high definition video and computer formats
Video Inputs	Composite (3) S-Video YPbPr Component	HDMI/DVI YPbPr Component	SD1: Up to 3 selectable composite sources HD1: Adapter required for DVI inputs
Input Connectors	3 RCA/Phono 1 Mini-DIN S-Video	3 RCA/Phono 1 HDMI	SD1: 3 RCA used for composite or component inputs HD1: 3 RCA used for component inputs SD1: Mini-DIN shared with RCA connectors 1 and 2
Status Indicators	Red "ACTIVE" LED Green "RUN" LED Blue "RDY" LED Yellow "PGM" LED 4 Green LEDs	Red "ACTIVE" LED Green "RUN" LED Blue "RDY" LED Yellow "PGM" LED 4 Green LEDs	"Camera active" indicator (same as Raspberry Pi camera) PiCapture Ready indicator Video Active indicator Programming / PiVideo Control Active Indicator PiCapture Video Processor source type / status
Video Output Format	640 x 480	640 x 480 1280 x 720 (720p) 1920 x 1080 (1080p)	Square Pixels
Configuration Jumpers	UART Select (2x2) I2C Select (3x2)	UART Select (2x2) I2C Select (3x2)	Remove to disconnect from serial port Select I2C port, or remove to disconnect from both I2C ports
Included Accessories	CSI-2 MIPI interface cable Mounting hardware	CSI-2 MIPI interface cable Mounting hardware	Standoffs and screws for securing the PiCapture board to RPi
Software Provided	PiVideo control software	PiVideo control software	Used to manage the PiCapture video processor
Software Compatibility	Raspivid, Raspistill, PiCamera library	Raspivid, Raspistill, PiCamera library	Including command line switches for adjusting video output
Environmental	-0°C to 70°C/32°F to 158°F 10 to 90% humidity	-0°C to 70°C/32°F to 158°F 10 to 90% humidity	Humidity is non-condensing
Compliance	RoHS IPC Class 2	RoHS IPC Class 2	
Warranty	90 days	90 days	

For more information on PiCapture modules, please visit us at www.lintestsystems.com

Did You Know?

We can provide custom versions of our products or develop new products to your specifications. Contact us with your ideas!