

Camera Interface

Rabbit-based Photo & Motion Event Capture

Application Kit

Key Features

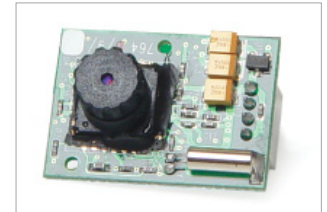
- RabbitCore module at 44 MHz, and 10/100Base-T Ethernet
- 512K Flash / 512K SRAM, 16MB NAND (data), and socket for removable memory
- VGA camera module (JPEG compression), servo motors, and IR motion sensor
- Sample programs demonstrate event-capture options using motion detection, I/O input, or timed event
- Time stamped photos and event notification options such as email notification and FTP upload
- FAT file system included for storing and managing photos and data
- User-friendly web interface for simple event management

Design Advantages

- Rabbit-based application that uses both a camera and servos as a way to capture an event and control data
- Capture options provide practical event trigger examples
- A RabbitCore module acts as an HTTP and FTP server, as well as the intelligent device
- Royalty-free FAT software module

Applications

- Ideal for remote monitoring of equipment, devices, work areas or locations
- Security applications
- Any event-trigger application
- Supplement to an alarm system



Camera

Camera Interface Application Kit for remote monitoring, security, asset management, alarm systems, and more.

The Camera Interface Application Kit combines a VGA camera with a popular RabbitCore module that has removable memory to provide an event-capture application. An easy-to-use web interface allows you to control the camera movement using servo motors, and an infrared motion sensor is used to trigger an image capture under software control. A user-configured event notification system is activated, which includes an e-mail of the event with a photo link.

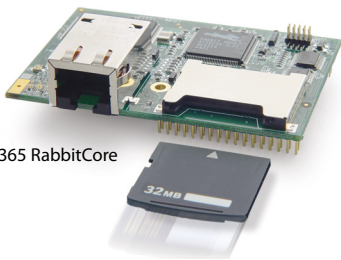
The Camera Interface Application Kit serves as an example for a Rabbit-based system using a camera for remote monitoring, security, asset management, as a supplement to alarm systems, and other event-action systems. The kit contains two servos that allow for pan-and-tilt motion, an infrared motion

detector for event triggering, and an RCM3365 RabbitCore module for control. Because the RCM3365 provides up to 128 MB of storage and Ethernet functionality, the system allows the user to store and manage photos, send event notifications via email or send the logged files to an FTP server.

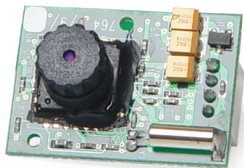
Software Tools

The sample programs and libraries demonstrate event action systems with photo capture, servo motor control, and image data management using our robust FAT network-accessible file system. Since the RabbitCore module acts as a server for the system, there is a simple web interface that allows you to monitor and control the system using a standard web browser – so you can monitor from anywhere in the world!

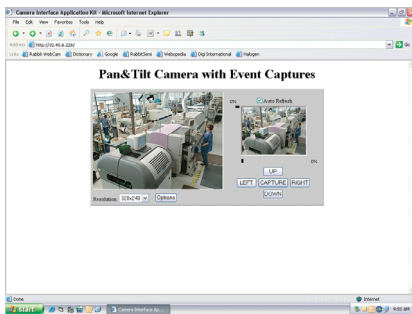
The password-protected web interface allows you to capture photos based on various event triggers –by motion detection, timed interval, or digital input. You also have control of where the capture is sent, as well as retrieve information for each event – including a time stamp, the event trigger, and the action taken after the event. The Camera Interface Application Kit is quick and easy to use for single-use projects, yet has the software and tools for commercial applications.



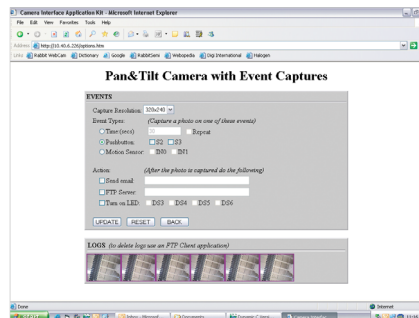
RCM3365 RabbitCore



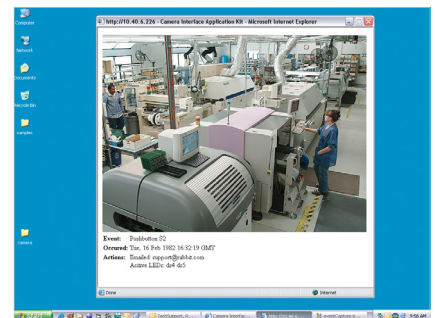
VGA Camera Module



Event Capture Screen



Event Capture Options Screen



Captured event email notification.

Camera Interface Specifications	
Features	Camera Specifications
Camera Type	JPEG Compression VGA Camera Module
Image Resolution	640 x 480 (VGA) / 320 x 240 (QVGA) / 160 x 128 / 80 x 64
Interface & Transmit Rate	RS-232 (TTL); 115.2 kbps; 160 x 128 preview @ 8bpp with 0.75fps
Photo Size (typical)	VGA JPEG approximately 40K
Data	JPEG compression or RAW
Power	3.3 V DC (3.6 V DC max) / 60 mA operating current
Lens	¼" Imager Format; f/2.8; 4.63 mm Focal Length
Color	Up to 8-bit gray, 16-bit RGB or standard JPEG preview images
Features	IR Motion Sensor Specifications
Sensor Type	Passive infrared sensor (for motion detection)
Range	Up to 5 meters
Output Voltage	TTL
Power	4 V DC, 400 µA @ 5 V DC
Size	25 x 35 mm
Features	Servo Motor
Motor Type	Micro-servo
Torque	0.4 kg-cm (4.8 V DC); 0.5 kg-cm (6.0 V DC)
Direction	Clockwise / pulse traveling 1500 to 1900 µs
Power	4.8 V DC – 6.0 V DC / 100 mA
Size	19.6 x 17.6 x 8 mm

RabbitCore RCM3365 Specifications	
Features	RCM3365
Microprocessor	Rabbit 3000 @ 44.2 MHz
Ethernet Port	10/100Base-T, RJ-45, 3 LEDs
Flash	512K
SRAM	512K program + 512K data
Extended Memory	16 MB (fixed) xD-Picture Card™ socket support up to 128 MB (NAND Flash)
Backup Battery	Connection for user-supplied battery (to support RTC and data SRAM)
General-Purpose I/O	52 parallel I/O: 44 configurable / 4 fixed inputs / 4 fixed outputs
Camera Interface Application Kit Pricing	\$499
Part Number	U.S. 101-1121 Int'l 101-1122