RabbitCore® RCM6600W

Ultra Compact Ethernet to Wi-Fi Bridge

Embedded module with integrated 802.11 b/g Wi-Fi and 10/100 Ethernet, utilizing Digi Device Cloud to manage firmware updates and eliminate device deployment issues.

Overview

The RCM6600W is a fully customizable, ultra compact embedded cloud module with an integrated 802.11b/g and 10/100 Ethernet interface. The dual networking interfaces software supports not only Ethernet to Wi-Fi bridging but also provides secure 802.11i - WPA2 support. The RCM6600W is easily programmable with royalty-free networking libraries, available in the comprehensive software environment Dynamic C. In addition, with up to six serial ports available the RCM6600W can connect to a host of devices such XBee® ZigBee modules, GPRS and GPS devices, all of which have fully supported libraries within Dynamic C.

The RCM6600W supports Digi Device Cloud, an easy-to-use platform for device control and monitoring. In addition, Device Cloud provides scalabilty for managing firmware updates to literally thousands of devices with the click of a button.
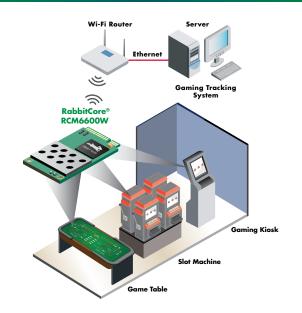
The capabilities and features of the RCM6600W address many common device deployment concerns ulitmately reducing development costs and time to market.

Application Highlight

Development Kit

Development kit comes complete with essential hardware and software

(kit is USB powered)

Features/Benefits

- **Integrated 802.11b/g and 10/100 Ethernet networking**
- **4 A/D inputs 12-bit resolution**
- **Clock speed up to 180MHz**
- **Up to 32 GPIO line and 6 serial ports**
- **Manage firmware updates with Device Cloud**
- **Lightweight web server for monitoring and control**
- **ZigBee and GPS/3G cellular connectivity support**
- **FCC and CE certified**

Specifications	RCM6600W	RCM6650W
Features		
Microprocessor	Rabbit® 6000 @ 162.5 MHz	
Network Peripherals	10/100Base-T (Ethernet Signals only)	
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)	
Serial Flash Memory (Program)	1 MB	4 MB
SRAM	1 MB	
Backup Battery	Connection for user-supplied backup battery (to support RTC)	
General Purpose I/O	Up to 35 parallel digital I/O lines configurable with 4 layers of alternate functions, plus FIM (Flexible Interface Module) control	
Analog Inputs	0, 2 or 4-inputs shared with PE0,1 or PE2,3. 12 bit resolution, 11 bits performance at upto 1 Msample/sec (125 ksample/sec for any one input with no CPU overhead). Input range 100mV to Vcc-100mV typical.	
Additional Inputs	Reset in	
Additional Outputs	Status, reset out	
External I/O Bus	Can be configured for 8 data lines 8 address lines (shared with parallel I/O lines), plus I/O read/write	
Serial Ports	6 high-speed, CMOS-compatible ports: All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC 1 clocked serial port shared with programming port	
Serial Rate	Maximum asynchronous baud rate = CLK/8	
Slave Interface	Slave port allows the module to be used as an intelligent peripheral device slaved to a master processor	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers	
Watchdog/Supervisor	Yes	
Pulse-Width Modulator	4 channels synchronized PWM with 10-bit counter or 4 channels variable-phase or synchronized PWM with 16-bit counter	
Input Capture	2-channel input capture can be used to time input signals from various port pins	
Quadrature Decoder	2-channel quadrature decoder accepts inputs from external incremental encoder modules	
Power	3.15 V DC (min.) - 3.45 V DC (max.) 625 mA @ 3.3 V while transmitting/receiving 85 mA @ 3.3 V while not transmitting/receiving	
Operating Temperature	-30° C to +55° C	
Humidity	5% to 95%, non-condensing	
Connectors	Edge connectors for interface with 52-pin mini PCI Express socket	
Board Size	1.20 in × 2.00 in × 0.40 in (30 mm × 51 mm × 10 mm)	
Wi-Fi Specifications		
Typical Average Antenna Output Power	Americas, Japan 802.11b: 19 dBm; 802.11g: 15 dBm	
	Other Regions 802.11b: 18 dBm; 802.11g: 15 dBm	
Compliance	802.11b/g, 2.4 GHz	
MiniCore Kits		
Development Kit Part Number	Standard Development Kit 101-1325	Deluxe Development Kit 101-1324

You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit www.digi.com/support