

# Updating Your Application from the RCM3200/RCM3220 to the RCM3209/RCM3229

## Introduction

Rabbit is changing our product offerings to respond to both market requirements and the components available to us.

The RCM3900 series of RabbitCore modules was released in 2008. We are introducing the RCM3209 and RCM3229 RabbitCore modules in March, 2008. These new modules are similar in form, dimensions, and function to the RCM3200/3220 modules, and are based on the new RCM3900 series.

This Technical Note compares the two series of RabbitCore modules, and provides complete information on how to port your application developed for the RCM3200/RCM3220 to the equivalent RCM3209/RCM3229 RabbitCore modules.

# Comparing the RCM3200/RCM3220 and the RCM3209/RCM3229

## Ethernet Chip

A different Ethernet controller chip is used on the RCM3209. The Ethernet chip is able to detect automatically whether a crossover cable or a straight-through cable is being used in a particular setup, and will configure the signals on the Ethernet jack interface. The RCM3229, like the RCM3220, has no Ethernet interface.

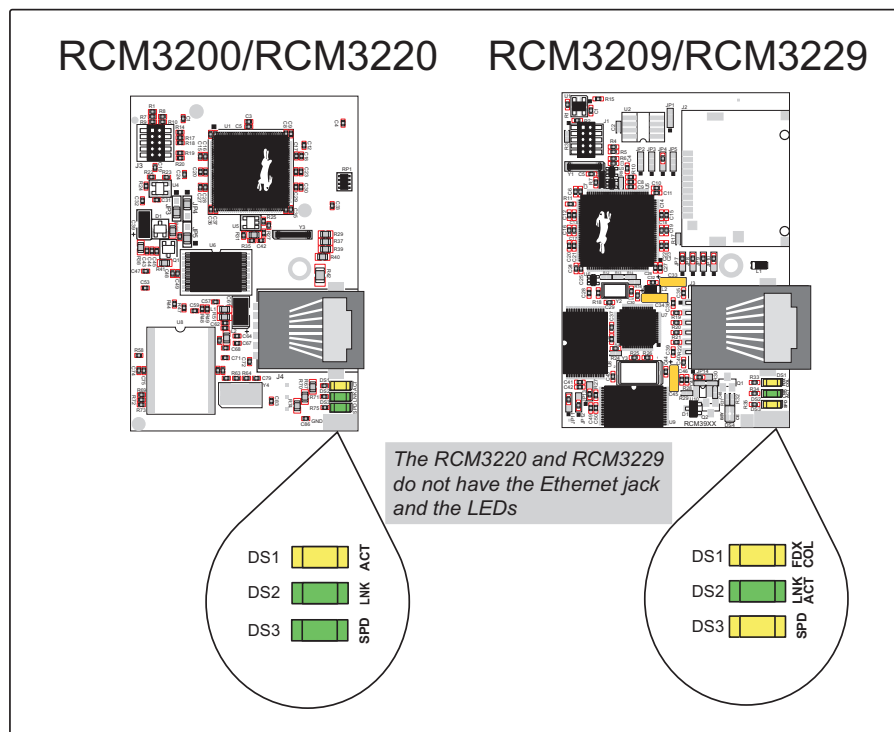
## Maximum Current

The RCM3200/RCM3220 draws 255 mA vs. the 325 mA required by the RCM3209 (with Ethernet) or 190 mA (RCM3229 without Ethernet).

## LEDs

The **LNK/ACT** LEDs have been combined to one LED on the RCM3209, and the RCM3209 has an **FDX/ COL** LED where the **ACT** LED was on the RCM3200. The RCM3229, like the RCM3220, has no LEDs and no Ethernet.

Figure 1 compares the RCM3200/RCM3220 and the RCM3209/RCM3229 component layouts. The LED placements on the boards remain unchanged.



**Figure 1. RCM3200/RCM3220 and RCM3209/RCM3229 LED Layouts**

## Dynamic C

You may run your application developed for the RCM3200/RCM3220 on the RCM3209/RCM3229 after you recompile it using Dynamic C v. 9.60 or later.

Dynamic C v. 9.60 now has many of the previously optional modules included in the standard release. Table 1 compares the Dynamic C features available for the two series of RabbitCore modules.

**Table 1. Comparison of Dynamic C Resources**

Dynamic C	RCM3200/RCM3220	RCM3209/RCM3229
Standard Release	v. 9.21	v. 9.60
Optional Modules (purchased separately)	<ul style="list-style-type: none"> <li>• FAT File System</li> <li>• RabbitWeb</li> <li>• Point-to-Point Protocol (PPP)</li> <li>• Simple Network Management Protocol (SNMP)</li> <li>• <math>\mu</math>C/OS-II Real-Time Kernel</li> <li>• Library Encryption Executable</li> <li>• Modbus TCP</li> </ul>	Included in Standard Release
Optional Security Modules (purchased separately)	<ul style="list-style-type: none"> <li>• Advanced Encryption Standard (AES)</li> <li>• Secure Sockets Layer (SSL)</li> </ul>	<ul style="list-style-type: none"> <li>• Rabbit Embedded Security Pack</li> </ul>
Other Optional Modules (available separately)	<ul style="list-style-type: none"> <li>• Rabbit Field Utility source code</li> <li>• One-Year Telephone Technical Support Subscription</li> </ul>	<ul style="list-style-type: none"> <li>• Rabbit Field Utility source code</li> <li>• One-Year Telephone Technical Support Subscription</li> </ul>

## Summary

Table 2 summarizes the features for the two series of RabbitCore modules.

**Table 2. Feature Comparison**

Parameter	RCM3200	RCM3220	RCM3209	RCM3229
Ethernet Port	10/100Base-T, RJ-45, 3 LEDs	—	10/100Base-T, RJ-45, 3 LEDs	—
SRAM	512K program (fast SRAM) + 256K data		512K program (fast SRAM) + 256K data	
Flash Memory (program)	512K		512K	
Operating Temperature	-40°C to +70°C		-40°C to +85°C	
Board Size	1.850" × 2.725" × 0.86" (47 mm × 69 mm × 22 mm)			
Dynamic C	v. 9.21 (standard release)		v. 9.60 (standard release)	

**NOTE:** The RCM3210 was discontinued in July, 2004, and is no longer offered. Therefore, there is no replacement for it.

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