

Re: How do you extract the info from an RF Rx module (like garage door opener) ?

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- *From:* David R Brooks <davebXXX@xxxxxxxxxxxx>
  - *Date:* Tue, 03 Oct 2006 01:47:13 -0800
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Rodo wrote:

Hi all,

I've been experimenting with receiver circuits and I'm missing something. The LC receiver I have (one of Ming's) and the Microchip (433.92 MHz, rFRXD0420) seem to have noise at the output when they're not receiving a signal. I see the signal (on a scope) when I press a button in the respectively transmitter. But if I have this signal apply to the input of a micro, it looks like I'm going to decode something (wrong) all the time because of the noise. Shouldn't the output pin be low until the pulses are demodulated by the receiver ? So that a high or low transition could be used to trigger an IRQ and decode the signal ? As I said before... it looks like I'm missing something in between the RX module and the MPU.

Could someone shed some light into my information gap please ?

Many of the low-cost RX modules have no filter on their outputs, so you get noise when there's no signal. You need to provide a filter. How elaborate a filter, is up to you. It also depends on the data format you use. Typically, the highest frequency in the output will be half the bit rate (ie a string of alternating 1's & 0's). That sets your filter cutoff.

This won't guarantee to exclude noise, but it will set an upper limit on the rate those interrupts can occur. So long as your CPU can handle that, & you then validate the data by software, it will work.

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