

Re: IsThere a chip with multiple (4 or 8?) serial ports??

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 - *Date:* Thu, 05 Jul 2007 09:48:57 GMT
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On a sunny day (Wed, 04 Jul 2007 18:47:38 -0700) it happened
"terry@xxxxxxxxxxxxxx" <terry@xxxxxxxxxxxxxx> wrote in
<1183600058.715287.87230@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>:

I need to build devices for a Marine application that will receive multiple (4 or 8) serial signals. Typically the signals are 4800 baud, N,8,1 with a burst length of up to 80 characters, and a repetition rate of 1 to 2 per second. (These are NMEA signals). They are uncoordinated signals from individual devices such as GPS receivers, Engine monitoring instruments etc...

I'm looking for a chip with multiple serial ports (actually receive – only would be OK here). I want to interface such a chip or chips to a PIC which will do a small amount of supervision, possibly filtering, and use it's main hardware UART or USB or a CAN controller to output data to a computer.

I've searched thru MicroChip and some on Google etc. What I'd LIKE is a serial-port chip designed to interface to a microcontroller by SPI, serial, I2C etc. AND which has 4 to 8 serial ports.

Anyone seen such a beastie?? Any other suggestions other than many single-channel USARTs (Ughh..)

Thanks!

It is actually quite simple to implement a serial port in software. Depending on processor speed, you can poll status for one or many status bits... use interrupts if you must.. PIC could do it. One fast PIC is all you need.

If one wanted _many_ serial ports, fast hardware, and separate processing, filtering, and lots of IO to do something, then a small FPGA can be useful. You can easily fit >100 serial ports in a low cost FPGA, and perhaps if you actually needed a processor just use some core (free of buy IP).

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