



Kendrick Wiersma <kgw3@students.calvin.edu>

Calvin College Sr. Design Team Questions

7 messages

Kendrick Wiersma <kgw3@students.calvin.edu>
To: rramsay@ti.com

Wed, Nov 3, 2010 at 11:06 AM

Mr. Ramsay:

I received your contact information from our professor here at Calvin and am writing you with some questions regarding our senior design project. We have decided to build a Smart Power metering system, and in doing some research it appears that TI makes many solutions that could help us accomplish this task.

We are looking at using an MSP430F471xx for a microprocessor as one of the microprocessors in our system, as suggested on the TI website; however, being slightly new to the field of microprocessors I was hoping that you may be able to help us select the correct chip for our application.

Additionally, I should mention that we are operating on a fairly tight budget and would like to acquire a development kit for the microprocessor that we choose. In my searching I have found [this board](#) that looks like it will be correct for our application (assuming we go with the MSP430F47xx). However, we have been given an operating budget of approximately \$300, of which this would consumer almost 50%; is there any possibility of a donation through the TI University Program? If you cannot answer that, if you could at least put me in contact with the correct person that would be fantastic.

Thank you for your time, look forward to hearing back from you soon.

Kendrick Wiersma

Calvin College Senior EECS

kgw3@students.calvin.edu

Ramsay, Russell <rramsay@ti.com>
To: Kendrick Wiersma <kgw3@students.calvin.edu>

Wed, Nov 3, 2010 at 5:32 PM

Hello Kendrick,

Thank-you for your e-mail and interest in using TI products for your design challenge.

I will see what I can do to obtain a kit for you and a few samples of this part. Have you narrowed down on the exact p/n yet? Or is that what you are looking for some assistance on?

Is this the web page where you obtained info on the MSP430 for e-metering? <http://focus.ti.com/mcu/docs/mcuorphan.tsp?contentId=31498>

Thanks

Best Regards,
Russell Ramsay
Technical Sales Representative - West Michigan
Texas Instruments
mobile: 469-230-5127
rramsay@ti.com

From: Kendrick Wiersma [mailto:kgw3@students.calvin.edu]
Sent: Wednesday, November 03, 2010 11:07 AM
To: Ramsay, Russell
Subject: Calvin College Sr. Design Team Questions

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Ramsay, Russell <rramsay@ti.com>
To: Kendrick Wiersma <kgw3@students.calvin.edu>

Wed, Nov 3, 2010 at 9:25 PM

Hello Kendrick,

I spoke to the TI University program people and received permission to sample this board to you. Let's work to nail down the exact board that you'll want and I'll get it ordered. Please give me a call or shoot me an e-mail if you need further help in making a selection.

Thanks

Best Regards,
Russell Ramsay
Technical Sales Representative - West Michigan
Texas Instruments
mobile: 469-230-5127
rramsay@ti.com

From: Kendrick Wiersma [mailto:kgw3@students.calvin.edu]

Sent: Wednesday, November 03, 2010 11:07 AM

To: Ramsay, Russell

Subject: Calvin College Sr. Design Team Questions

Mr. Ramsay:

[Quoted text hidden]

Kendrick Wiersma <kgw3@students.calvin.edu>

Wed, Nov 3, 2010 at 9:25 PM

To: "Ramsay, Russell" <rramsay@ti.com>

Mr. Ramsay:

Thanks for your response and for the offer to track down a kit and sample parts, that is fantastic!

The web-page you have linked is in fact one of several I have been looking at over the past few weeks. [This](#) is actually where I landed initially and what really sparked my interest in TI's parts.

Just to give you a little bit of background on what we are doing in the hopes that you may be able to help us decide which MSP430 processor is right for us. We are intending to monitor the power in a "typical" residential or commercial application (single-phase or multi-phase) and collect as much information as possible (voltage, current, harmonics, demand, and load, to name a few). In order to accomplish this we want to use a monitor setup similar to that in [this app-note](#), on the front and some other sensors we have to collect additional data. The idea is that eventually all this data is aggregated and made sense of at a central base-station that can serve up a webpage.

Now, in the app-note I referenced, an MSP430F4719 was used, which seems to fit the bill perfectly for our project. I'd be curious if you had any thoughts as to whether that is the case, or if there might be another chip in the MSP430 family that would be better suited for this application.

Thanks

Kendrick Wiersma
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Ramsay, Russell <rramsay@ti.com>

Wed, Nov 3, 2010 at 9:29 PM

To: Kendrick Wiersma <kgw3@students.calvin.edu>

Kendrick,

First please call me Russ. J

I'm certainly not an expert in this area but it does seem like you've hit on a good part. Whether or not we have something newer with additional features, I'm not quite sure. I will need a few days to research. What is your timeline?

Best Regards,
Russell Ramsay
Technical Sales Representative - West Michigan
Texas Instruments
mobile: 469-230-5127
rramsay@ti.com

From: Kendrick Wiersma [mailto:kgw3@students.calvin.edu]
Sent: Wednesday, November 03, 2010 9:25 PM
To: Ramsay, Russell
Subject: Re: Calvin College Sr. Design Team Questions

[Quoted text hidden]

Kendrick Wiersma <kgw3@students.calvin.edu>
To: "Ramsay, Russell" <rramsay@ti.com>

Wed, Nov 3, 2010 at 10:05 PM

Russ. J,

Sure thing on the names :)

I wasn't exactly sure how much that question was in your area of expertise, but there does seem to be a fair amount of evidence that that part would do the trick nicely (especially given that it is targeted at energy meters), and given that, I feel like we should just go with it and not over-analyze the situation too much.

Our timeline isn't particularly tight. We are hoping to collect the majority of our parts within the next few weeks and have a small-scale demo that all the parts are functional by end of the month (hopefully sooner).

Just got the other email you sent, excellent news from the University Program!

If possible I think we'd like to try and get [this kit](#) which is P/N: MSP-FET430U100A which if I'm reading this correctly comes with the development board, 1 of the MSP430F47197 chips, and the JTAG debug-pod. And if you could get us a couple of spare MSP430F47197PZ chips, that would be great.

I can give you a call tomorrow just to finalize things and give a final answer as to parts after consulting with my team-members. What would be a good time to call?

Thanks again.

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Kendrick Wiersma <kgw3@students.calvin.edu>

Thu, Nov 4, 2010 at 11:44 AM

To: "Ramsay, Russell" <rramsay@ti.com>

Russ,

Sorry about the confusion on the phone, my cell is dying a very slow death so there is horrible lag when talking on it.

Below is the address for my apartment on Calvin's campus:

Kendrick Wiersma

3465 Burton St. SE -- K7

Grand Rapids, MI 49546-5965

If you could let me know when you expect the parts to ship I'd appreciate it. That way I can complete that action item and keep our professor happy :)

Thanks.

Kendrick Wiersma

Calvin College Senior EECS

kgw3@students.calvin.edu

On Nov 3, 2010, at 9:29 PM, Ramsay, Russell wrote:

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