

Re: DTMF dead?

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- *From:* nico@xxxxxxxxxxx (Nico Coesel)
 - *Date:* Thu, 12 Jul 2007 17:52:11 GMT
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Charlie Edmondson <edmondson@xxxxxxxx> wrote:

Nico Coesel wrote:

"Joel Kolstad" <JKolstad71HatesSpam@xxxxxxxx> wrote:

"Nico Coesel" <nico@xxxxxxxx> wrote in message
news:469287fd.52824567@xxxxxxxxxxxxxxxxxxxx

That is a very valid argument. But there
many reasons (wiring,
connectors, transformers, code size, etc)
why ethernet doesn't fit in
this application.

You can still use a PoE controller IC even if you don't have
"real" Ethernet
anywhere... they're really just your standard switching
converter ICs with a
simple "protocol" thrown on top to let the controller
"handshake" with the
power provider system.

But that still seems like an overkill for the project at hand. There
is an ethernet connected device acting as a bus master. Using internet
technology also comes with security issues so SSL or a similar
encrypted tunneling technique is required.

A proprietary bus is not easy to hack or interface (lets say it takes
more than a laptop with ethereal) and thus requires less security
measures. SSL alone takes about 90kB of flash and some processing
power.

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Nico,

If you have any choice, go with a standard cable, like a four twisted pair ethernet type, and then use PoE for your power, and then two of the

The problem is that an ethernet modular jack plug won't fit. Besides I would like to use a very reliable and easy to mount connector like a small size spade.

pairs for your communications. DO NOT USE DTMF unless you have a full head of hair, and don't like barbers, as you will pull it all out. If you have that many nodes trying to communication via DTMF, you will have no easy way of dealing with collisions, noise on the line from all the

That's true. That is why I decided the nodes should shut-up until called for. No collision detection is needed.

different termination points, etc. Go with a standard, like 422 or 485, and you can cook up your own protocol to get your data polled and comm'ed reliably. Also, you will quickly find, if you have that many nodes, that you do not want to send all the power from a single main source, but will need to break your network down into smaller groups that all power from relatively local supplies. Adding up even a low power node, say 4 mA, and you get 100 of them, with cable losses, and your start tracing your wire runs using an IR viewer!

That is one of the reasons why I'm investigating communicating over the power supply lines. The less wires, the thicker each wire. Also, less wires means less connections which in turns means less errors and less problems.

BTW, as the outline of the project is maturing it turned out there are no going to be hundreds of units on one line but aprox 50 to 100 which makes lives a little easier.

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Reply to nico@nctdevpunt.nl (punt=.)
Bedrijven en winkels vindt U op www.adresboekje.nl

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