Re: Phantom power on RS485 network

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- *From*: pbdelete@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
- *Date*: 06 Jun 2006 01:35:10 GMT

> It occurred to me that I might be able to feed
> phantom power down
> the RS485 signal lines to the remote boxes,
> but I don't know how. I
> 'Googled' on various combinations of
> 'RS485' and 'phantom power' but
> came up with nothing useful.

X10 uses the AC−network to transmitt it's signals. PoE can use all four wires to power devices and still keep 1Gbps data asfaik. Etc.. (google..)
It's all about seperating DC & AC.

> There will be no baseband audio and the data rate will be very low. The idea is that there will be several boxes around the stage. Each will have two buttons and two LEDs (red & green). The master station will monitor all boxes for button presses and flash the appropriate LED on the box where the button was pressed. All LEDs can be cancelled from the master station which will have clear buttons and an LCD display to

How many boxes will there be?, Led−only box seems kind of light for a scene ;)

> indicate which box was activated. I am planning on using ATmega8's in all the boxes and a serial protocol using ASCII messages. The protocol will require two−way communication on the network and the network will probably be around 75 metres in total length. I am thinking of RS485 as it doesn't radiate emissions as badly as an unbalanced system and there are microphone cables running nearby.

Two or even one io pin of the mcu (atmega8) could be used to setup a very cheap transmission system. A capacitor in series with the signaling pin should keep data signals seperate. A coil in series with the mcu powerpin ought to supply power. Care would have to be taken to resonance and stability of volt level.