

## Re: Telephone : Checking for "RTS"

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- *From:* "R. Wieser" <address@xxxxxxxxxxxxxx>
  - *Date:* Mon, 17 Apr 2006 23:59:53 +0200
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Ryan Wehl <nixnam@xxxxxxxxxx> schreef in berichtniews  
e209vi\$3p\$1@xxxxxxxxxxxxxxxxxx

Hello Ryan,

1) What effect do those put into anti-series diodes D1 and D2 have ?  
Both together will not pass current in any way .... As far as I can  
see he (the designer) mixed up his zener-diode schematic (using an  
anti-series configuration) with a normal diode schematic (using an  
anti-parallel configuration)

2) why did the designer de-couple from the Phone-line with a trafo and  
capacitors etc. Why did he not just leave-out those capacitors ?  
Or even used the simple one-wire (plus ground) input ?

1) D1 and D2 are used to protect the ic inputs to 5V since you could  
get external noise spikes from the coupling transformer

Could you pass that by me again, but that with a bit more detail ?

As far as I can see it those diodes *\*cannot\** limit anything to 5V, as they  
are not wired like normal clamping-diodes normally are (and that should take  
4 diodes, 2 for both lines).

2) this works like a dial-up modem, but instead of using a ringsignal  
it is using a voltage reversal to connect to the phoneline and  
receive the DTMF.

I'm sorry, but I do not follow you here : "is using a voltage reversal" ?  
What part of the schematic might do that ?

The opto is used to detect the line reversal

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I see. But only when the "phone" is already Off-hook, and the relay has been activated (so the capacitor is bypassed).

As long as the relay is not activated it could be used as a ringing-detector, where it not that the output of that opto-coupler does not seem to reach the controller ...

Now I look more closely at it, I must say that that opto-coupler does not actually seem to be able to \*do\* anything, as it's output, pin 5, is going absolutely nowhere ...

It does however try to directly discharge a 47 uF capacitor, which could well lead to it being destroyed on the spot ....

I don't know what is going on here, but that schematic starts to look very funny to me. :-)

Please enlight me when I'm wrong.

Regards,  
Rudy Wieser

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