

## Re: Telephone : Checking for "RTS"

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*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.design/2006-04/msg02397.html>

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- *From:* "Ryan Wehl" <nixnam@xxxxxxxxxxx>
  - *Date:* Mon, 17 Apr 2006 14:50:26 +0000 (UTC)
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R.Wieser wrote:

Ryan Wehl <nixnam@xxxxxxxxxxx> schreef in berichtnieuws  
e1vfdu\$15s\$1@xxxxxxxxxxxxxxxxxxxx

Hello Ryan,

according to this: [http://oshd.sunsite.dk/projects/caller\\_id/](http://oshd.sunsite.dk/projects/caller_id/) and  
the included schematic, the dutch telecomm uses what we call a  
modem with a DAA to detect a loop reversal to get the DTMF  
signaling of the CID. Uses a Mitel/Marlink DTMF decoder. Quite a  
bit different from Bellcore. searched for "dutch caller id"

Thanks for the URL. And I did find that one myself too (I did spend  
quite some time searching for Dutch caller-ID stuff :-).

I'm not at all sure what you mean with "a modem and a DAA", (The only  
Modem-alike bit in the schematic is the max232, and isn't connected  
to the phone-line at all), but if you mean that the opto-coupler  
(ring-detector) could also be used for detecting the line-reversal  
... Well, maybe that could work.

I've thought about using it before, but I'm not at all sure about it's  
dependability.

Thanks for the hint/reminder though, I focussed so much on a 100%  
solution that I forgot this one :-\

Regards,  
Rudy Wieser

P.s.

A few things I have allways have wondered about when looking at this  
schematic :

- 1) What effect do those put into anti-series diodes D1 and D2 have ?

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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 spickes from the coupling transformer

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. The opto is used to detect the line reversal and uses the relay contact to present a 600ohm impedance to recv the signal. It also presents isolation btwn the unit and phone line. When the DTMF signal has been sent the polarity should reverse to the opto and drop the relay.

rw

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