

## Packages - Packaging Request #2680

### RTL8821CE Wifi Driver

2020-04-08 06:57 AM - Nooser

<b>Status:</b>	open	<b>% Done:</b>	0%
<b>Priority:</b>	wish		
<b>Assignee:</b>			
<b>Category:</b>			
<b>Description</b>			
Hello I want to try Parabola OS but i can't find the RTL8821CE driver in parabola repository when i was installing easier Arch distro, Arch repository did not have any too but I got the driver from Arch User Repository So, can someone on Parabola OS project make it available or maybe give me guidance how to add Arch User Repository repository on Parabola OS ? Thank You			

### History

#### #1 - 2020-04-08 10:55 AM - freemor

- Priority changed from bug to wish

A quick search show that the software required to run this device is non-free (as in freedom) and as such can not/will not be added to Parabola.

I'd strongly suggest getting a libre supported WiFi device or using your ethernet port for the time being.

Sadly Non-free WiFi firmware is probably the largest stumbling block for people trying to move to a libre OS.

#### #2 - 2020-04-08 05:31 PM - bill-auger

this may actually be free software - i took a quick look at the upstream sources; and there are a bunch of .c files in the 'core/' and 'hal/' dirs, and a Makefile, and the PKGBUILD has GPL as the license

<https://github.com/tomaspinho/rtl8821ce>  
<https://github.com/tomaspinho/rtl8821ce/blob/master/PKGBUILD>

there is o/c the caveat that linux-libre will not load it - it would need to be vetted by libre-libre first, and included in the modules package before parabola users could make use of it with 'your-freedom' in place

#### #3 - 2020-04-09 12:09 AM - freemor

from my searchings Debian has it in non-free there seems to be a firmware file that need to be downloaded separately from the kernel mabules in some of the manual set-ups. I looked at. I'm guessing the firmware blob is the non-free part as that would follow the usual WiFi pattern libre kernel modules/ nonfree firmware blob to load into the chipset.

I'll take a gander at the PKGBUILD list tomorrow.. perhaps things have changed a bit. Maybe some reversed it?

#### #4 - 2020-04-09 06:14 AM - Nooser

thank you guys  
i hope it will works

#### #5 - 2021-02-15 12:51 PM - GNUtoo

Good catch.

Thanks a lot for the information.

While it's not relevant to Parabola yet, finding WiFi drivers with (binary) firmwares under the GPL is the first step in getting more free WiFi firmwares, and potentially enabling to use newer WiFi standard (like IEEE80211.AC) with free software.

In that source code hal/phydm/rtl8821c/halhwimg8821c\_fw.c has a firmware and that file has GPL headers.

So it's just a matter of reconstructing the source code.

I've just created a page on the Libreplanet wiki about this finding: <https://libreplanet.org/wiki/Group:Hardware/research/WiFi/Realtek>

Like with the Kobo Aura H2O2, the firmware ISA seems to be 8051 here too.

## Files

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rtl8821ce AUR repository	55 Bytes	2020-04-08	Nooser
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