



# WLE600VX, Arch Linux, and 5GHz

saucyfox Jul 7th 2022



saucyfox

[Beginner]

Posts:

Jul 7th 2022

Hi, has anyone managed to get the WLE600VX working in AP mode on a 5GHz channel on Arch Linux? I had this set up with hostapd on my apu2d4, and it was working well until very recently. I'll list some basic details about my system below.

BIOS version & kernel version (latest at the time of posting):

## Code



```

1. # dmidecode -s bios-version
2. v4.17.0.1
3. # uname -r
4. 5.18.9-arch1-1

```

Userspace regulatory domain:

## Code



```

1. # iw reg get
2. global
3. country US: DFS-FCC
4. (902 - 904 @ 2), (N/A, 30), (N/A)
5. (904 - 920 @ 16), (N/A, 30), (N/A)
6. (920 - 928 @ 8), (N/A, 30), (N/A)

```

5GHz channel list (from "iw list"; everything is either disabled or no IR):

## Code



```

1. Band 2:
2. Frequencies:
3. * 5180 MHz [36] (23.0 dBm) (no IR)
4. * 5200 MHz [40] (23.0 dBm) (no IR)
5. * 5220 MHz [44] (23.0 dBm) (no IR)
6. * 5240 MHz [48] (23.0 dBm) (no IR)

```

Relevant kernel logs:

## Code



```

1. kernel: ath: EEPROM regdomain: 0x0
2. kernel: ath: EEPROM indicates default country code should be used
3. kernel: ath: doing EEPROM country->regdmn map search
4. kernel: ath: country maps to regdmn code: 0x3a
5. kernel: ath: Country alpha2 being used: US
6. kernel: ath: Regpair used: 0x3a

```

hostapd configuration:

## Code



```

1. ### hostapd configuration file
2. ctrl_interface=/var/run/hostapd

```

```
3. ctrl_interface_group=0
4. interface=ap0
5. driver=nl80211
```

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hostapd log:

## Code



```
1. ap0: interface state UNINITIALIZED->COUNTRY_UPDATE
2. ACS: Automatic channel selection started, this may take a bit
3. ap0: interface state COUNTRY_UPDATE->ACS
4. ap0: ACS-STARTED
5. ap0: ACS-COMPLETED freq=5260 channel=52
6. ap0: interface state ACS->HT_SCAN
```

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Some other things to note:

- I did recently experience a power event at my location which caused an outage/possible surge, but the device is behind a surge protector. I wouldn't expect the card to be operational at all if it was damaged by this, but I figured it was worth mentioning.
- Previously, I had the `ieee80211h` setting disabled because it wasn't working for some reason. In this case, ACS fails immediately if I don't include it.
- I'm still able to get the card working on a 2.4GHz channel.
- I did a full system upgrade which included a kernel update from 5.16.14.arch1-1 to 5.18.9.arch1-1. Admittedly this system had been neglected for a while, so a lot of other packages were upgraded in the process. I can try to narrow down the list to possibly relevant packages if necessary, but I'm mainly wondering if anyone on an up-to-date Arch installation is able to get this card working in 5GHz mode.

Any input is appreciated - thanks!



stupiduser

[Beginner]

Sep 18th 2022

Hi Saucyfox,

I had the same issue after upgrading an apu2 box from Ubuntu 20.04.5 towards 22.04.1. Suddenly my 5 Gb AP did not work anymore.

Some research shows the regulatory issue. APs in the 5GHz MUST work according to the ieee80211h standard. The wle600vx or wle200nx HW offered by pcengines does not fully fill this requirement. With the driver upgrade the option of an AP in 5GHz is gone. I did a fallback to 2.4GHz, too. See your Logs I had the same entries. .

I did not find HW supporting ieee80211h for APU2 so far.

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