MAC address

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The MAC address, or Media Access Control address, (sometimes Physical or Hardware address) is a unique identifier assigned to network adapters and network interface cards (NICs) by the manufacturer of the hardware. This address can be queried by users on the network the card is connected to. It is a permanent assignment to the network card, unlike an IP address which is assigned on a per-connection basis.

> MAC addresses are comprised of a six octets of hexadecimal values, separated by colons, for example: `00:11:AA:22:BB:33`

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How To Find Your MAC Address(es)

Windows

- Press `Win+R` to open a run prompt.
- Type `cmd` and hit `Enter` to open command prompt.
- Type `ipconfig /all` (note the space between the g and /).
- The MAC address is listed as series of 12 digits, listed as the Physical Address (00:11:AA:22:BB:33, for example). Each network adapter (wireless, Ethernet, etc.) has a separate MAC address.

Linux

Display all network interface information like so:

```
ip a
```

or

```
ifconfig -a
```

If your machine follows modern conventions, the Ethernet NICs will start with `en`, and the WiFi NICs will start with `wl`.

If unsure of what is useful, relay the entire output of these commands.

macOS

Open System Preferences > Network > select your network connection, WiFi or Wired (ethernet) > select Advanced > select the hardware tab where you will find the MAC address displayed

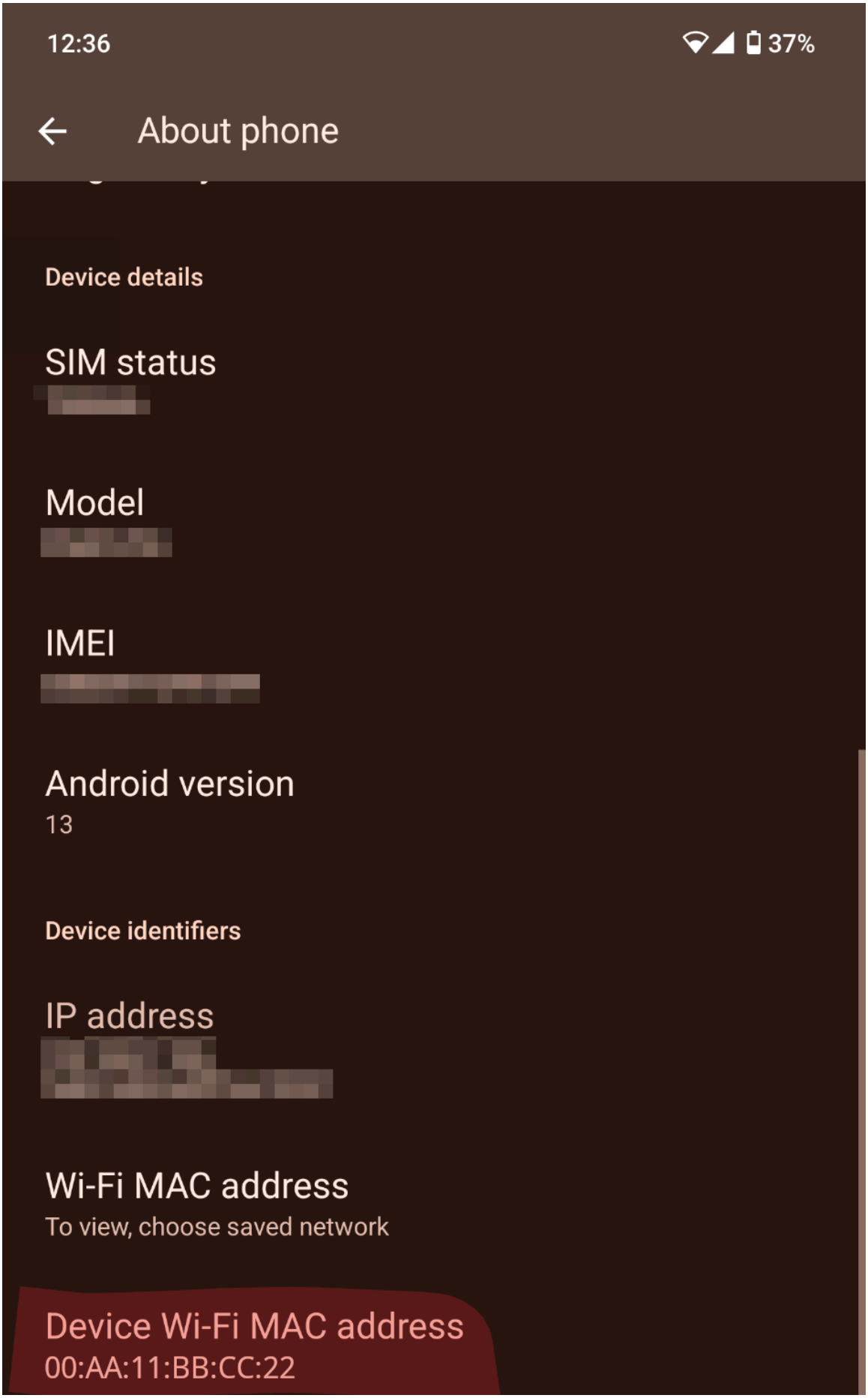
iOS

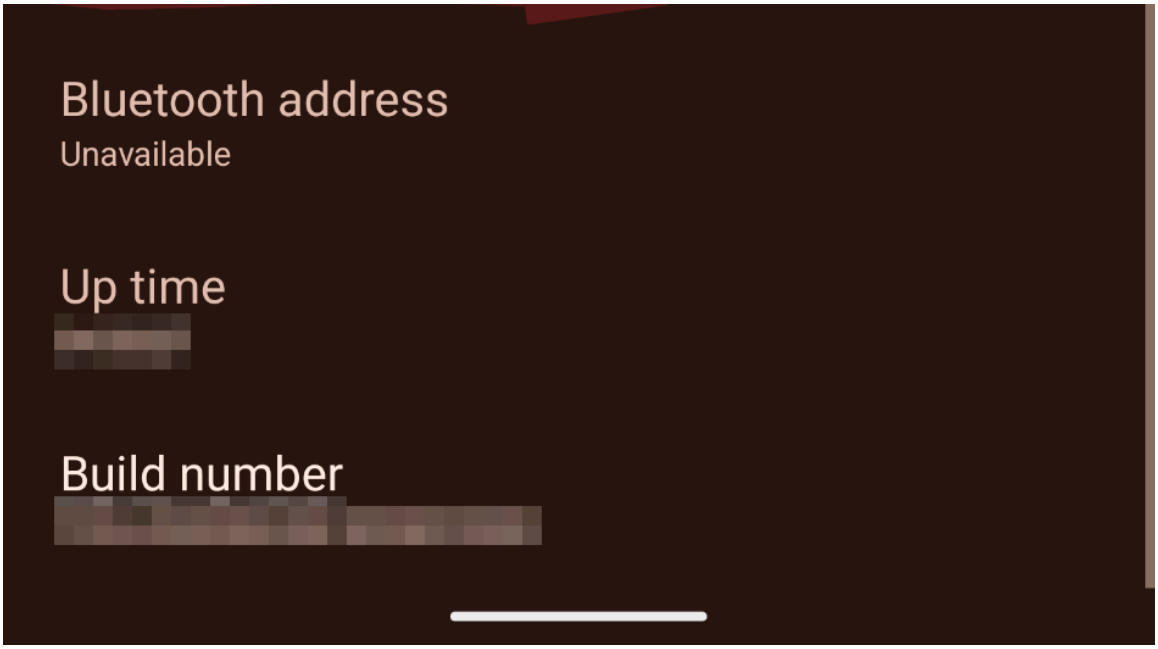
Select Settings > General > About.
A Wi-Fi Address displays. This is your device's MAC address.

Android

On Android 13, your wireless NIC's MAC address can be found here:

Settings > About Phone > Device Wi-Fi MAC address.


12:36
37%
About phone
Device details
SIM status
Model
IMEI
Android version
13
Device identifiers
IP address
Wi-Fi MAC address
To view, choose saved network
Device Wi-Fi MAC address
00:AA:11:BB:CC:22



Notes

It should be known that it is possible to change the appearance of the MAC address of a network device through MAC Spoofing

The IEEE, which distributes addresses to manufacturers, also has built in addresses to interact with multiple NICs at once:

- Packets sent to broadcast addresses are received by all points on a LAN.
- Packets sent to multicast addresses are received by all points on a LAN that are configured to receive that specific reserved multicast address.