



Fedora 37 - Lenovo Linux



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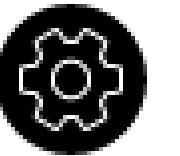
▶ Introduction

- Technical Lead Lenovo Linux PC
- 20(ish) years working with Linux
- I've changed my email address markpearson@lenovo.com -> mpearson-lenovo@squebb.ca



► Fedora Platform Status 2022

- X1 Carbon 10, Z13, Z16
 - Online in Europe (with Fedora 36)
 - Under configure to build option choose 'Linux Fedora'
 - Still a little rough round the edges - but systems go up faster!
- X1 Carbon 10
 - Online in US under Linux option.
 - Others coming (eventually)
- P14s AMD Gen 3 & P16s AMD Gen3
 - Ready to enter testing but waiting on Fedora 37
- P1 Gen 5 and P16 Gen 1
 - Looking possible - but also waiting on Fedora 37



ThinkPad X1 Carbon Gen 10 Intel (14") with Linux

Save \$1,489.50 50% off

Est Value ⓘ \$2,979.00

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Use eCoupon **BUILDOYOUROWN2022**

eCoupon limited to 4 units

Build Your PC

FREE Standard Delivery: Get it between Mon Nov 21 -
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Configurez votre ThinkPad Z13 Gen 1

1
Configurer

2
Services

3
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Accessoires

Choisissez vos composants

Développer toutes les catégories +

Processeur

3 options ▾

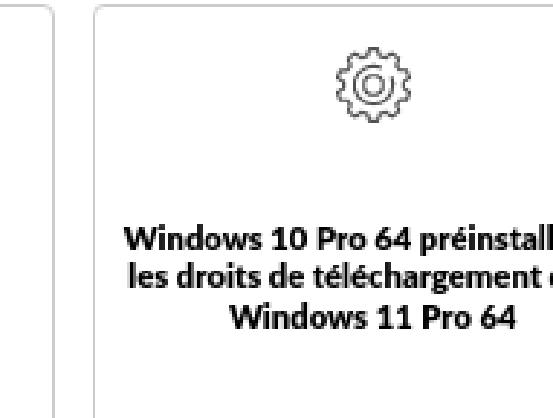
Processeur AMD Ryzen™ 5 Pro 6650U (2,90 GHz jusqu'à 4,50 GHz)

Optez pour un processeur R7 et obtenez davantage d'options de mémoire

Système d'exploitation

6 options ▲

Lenovo recommande Windows 11 Professionnel pour les entreprises



Suivant : Choix de Services

2 139,00 €

Départ livraison dans 2 semaine(s)

 Paiement
4X SANS FRAIS : 534,75 €

Votre configuration

Système de base sélectionné 229,00 €

Masquer les spécifications configurées ^

Système d'exploitation -90,00 €
Linux Fedora

Langue du système d'exploitation +0,00 €
Linux Fedora mondial multilingue

[Passer au panier](#)

 [Rétablir les spéc. de base](#)

► Linux Platform Status 2022

Intel Thinkpad	AMD Thinkpad	Workstation	ThinkCenter
*X1 Carbon G10 (F)	*Z16 (F)	*P1 G5 (F)	*M90q G3
*X1 Yoga G7	*Z13 (F)	*P14s G3	*M80q G3
*X13 G3	*X13 AMD G3	~P14s AMD G3	*M90t G3
*X13 Yoga G3	*X13 AMD G3	*P360 Tower	*M90s G3
*T14 G3	*T14 AMD G3	*P360 Ultra	*M80t G3
*T14s G3	~T14s AMD G3	*P360 Tiny	*M80s G3
*T16 G3	~T16 AMD G3	*P16 G1 (F)	*Neo50t G3
*L13 G3	*L13 AMD G3	*P16s G1	*M70q G3
*L14 G3	*L14 AMD G3	~P16s AMD G1 (F)	*M70t G3
*L15 G3	*L15 AMD G3	*P15v G3	*M70s G3
*X1 Extreme G5		P15v AMD G3	*M75q G2
*X1 Nano G2		*P620 (refresh)	
*T15p G3		*P520/c (refresh)	*SE30
~E14 G4		*P720 (refresh)	*SE50
~E15 G4		*P920 (refresh)	

► MIPI Camera Update

- Still not recommended with v4l2 loopback workaround
- Slowly making progress (taken with MIPI --->)
 - Camera is now 'working' and support added to Intel repositories
 - Instructions on how to get it working (Ubuntu 5.15 kernel):
https://drive.google.com/file/d/1oZOkAko-oc7R_jTPmOAXgdkRk4xmQUvC/view?usp=sharing
 - It's not easy to get it working, and it's still very limited
- Red Hat engineers working on solution for Fedora and Red Hat. They're awesome!
- Hoping to have pipewire interface that makes it a reasonable option - end of 2023?
- Longer term solution is libcamera (2024+)



► X13s ARM Platform Update

- POC project with ARM & Linaro
- Linux up and running. Patches are being submitted upstream
- Majority of HW is now working (exceptions below)
- Firmware blobs upstreamed to linux-firmware (yay!)
- DTBLoader EFI module being added to boot loader - in progress.
- Not done: GPU (in progress); NVRAM (needed for EFI boot variables), MIPI camera (unlikely)
- Installer: <https://docs.google.com/document/d/1WuxE-42ZeOkKAft5FuUk6C2fonkQ8sqNZ56ZmZ49hGI/edit#heading=h.d1689esafsky>
- [https://www.lenovo.com/ca/en/p/laptops/thinkpad/thinkpadx/thinkpad-x13s-\(13-inch-snapdragon\)/len101t0019](https://www.lenovo.com/ca/en/p/laptops/thinkpad/thinkpadx/thinkpad-x13s-(13-inch-snapdragon)/len101t0019)
- See 'Help Wanted' section



► Help Needed!

- We need to let web and product teams know that Linux demand is real. We have very limited tools to measure Linux usage (which is good).
- If you would genuinely be considering a Linux system but it's not available:
 - Use the feedback link on the web sales page to let them know.
 - This applies for platforms that are not part of the Linux program!
 - Or platforms that do not have a Fedora preload!
- If you purchased a Windows system but would have preferred to buy a Linux system
 - Make sure to return the customer survey you get after the purchase letting them know.
- Particularly important if you are getting a X13s - the product team are gauging if Linux is niche or not
- Please keep the feedback honest. No point gaming the system.
- If you do buy the Linux preloads - a big thank you! It does make a difference and I know it hasn't been as easy as it should be.

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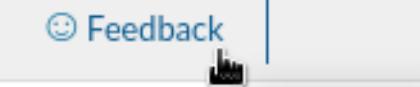
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► WWAN Update

- 2021
 - Quectel Modem (EM120/EM160) enabled and working well.
 - Foxconn 5G Modem (x55) enabled and working well
 - Official FCC unlock released by snap for Carbon & Yoga
 - US Carrier certification done on the X1 Yoga with the EM120 - under review. X1 Carbon will follow.
- 2022
 - Work on this years modems (L860R+ and FM350) progressing well (if a bit slowly) and very close to complete.
 - FM350 needs libmbim changes that are being upstreamed and should be the last piece
 - L860R+ has a suspend and resume issue that is being worked on.

► Open Forum

THANK YOU

Lenovo