



Kamera gern  
anschalten



Ton vorerst  
ausschalten

IT FÜR DIE SCHULE VON MORGEN

# Lenovo IT Hardware – User orientierte Clients für Schulen

Franca Blauss | 18. April 2024



## Wie gehen wir vor



Vortragsdauer ca. 45 Minuten



Während der Session können Sie bereits Fragen in den Chat stellen



Im Anschluss bitte Micros öffnen für Fragen!



# Portfolio Overview

# Consumer vs. Business



mirage YOGA tab by Lenovo LEGION  
moto ideapad LENOVO smart **Lenovo**

ThinkPad ThinkVision ThinkCentre ThinkReality  
ThinkStation ThinkEdge ThinkBook ThinkSmart

# Think BRANDS



**ThinkPad**



**ThinkBook**



**ThinkCentre**



**ThinkStation**



**ThinkReality**



**ThinkVision**



**ThinkSmart**



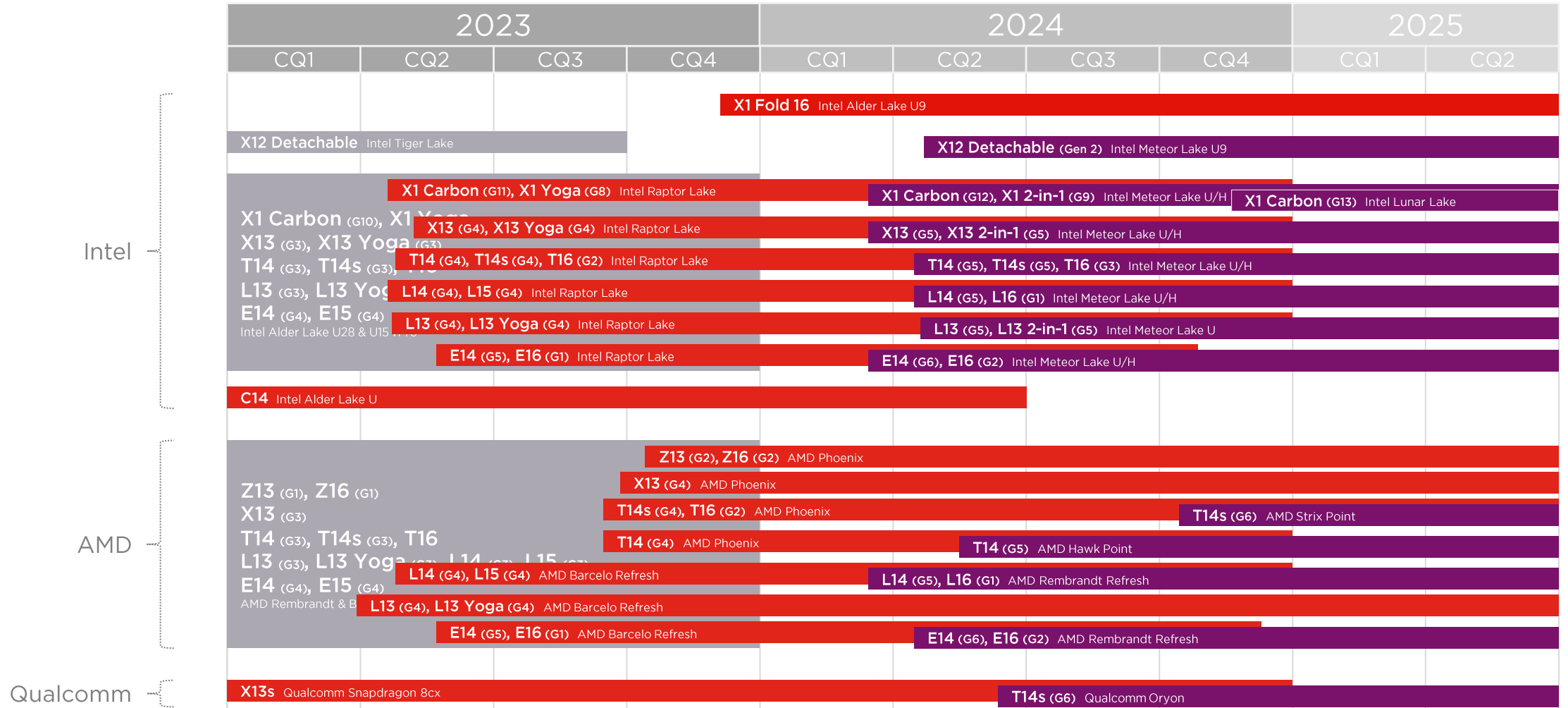
**ThinkEdge**

# ThinkPad & ThinkBook & Tablets

# Android Tablets

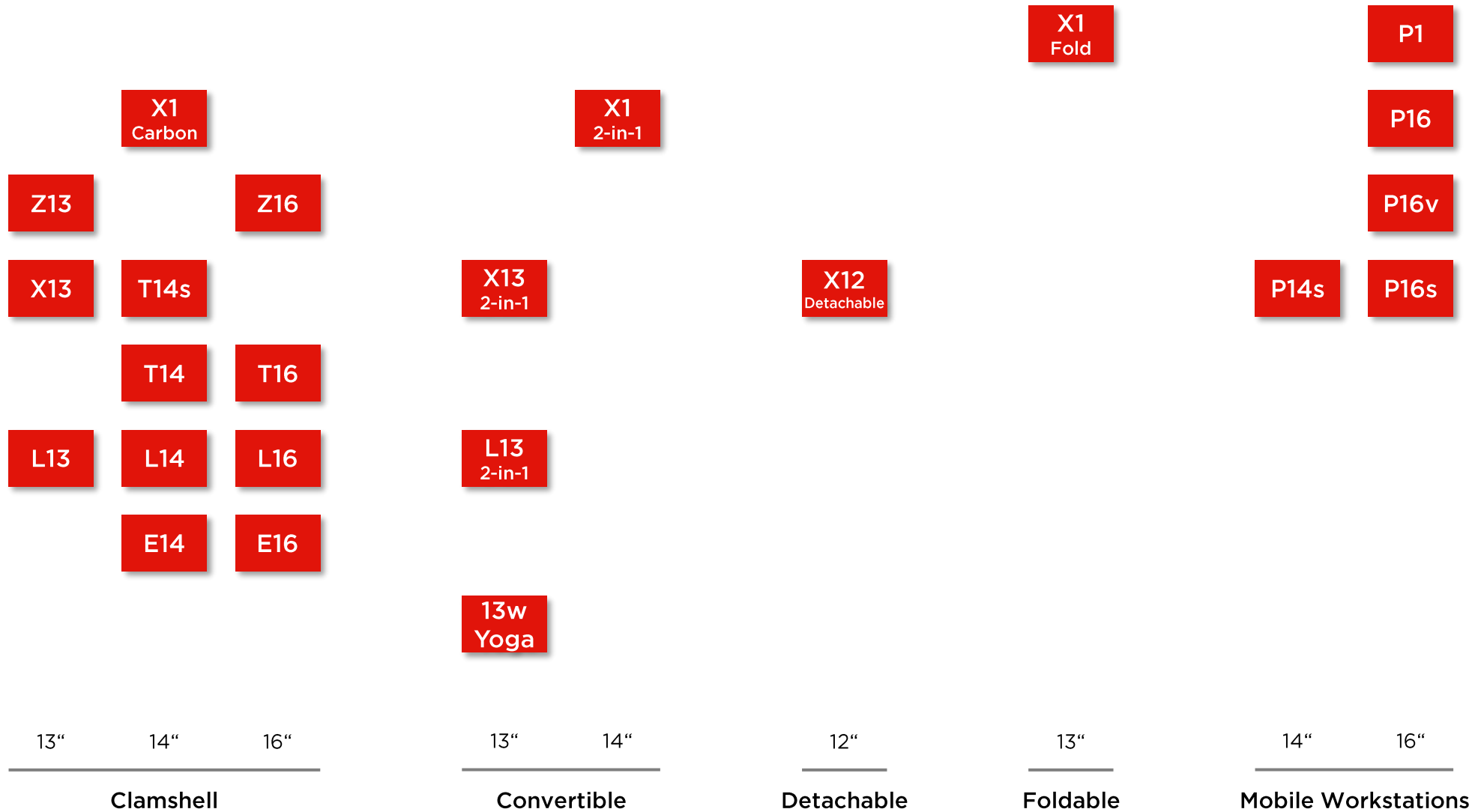


# ThinkPad Roadmap

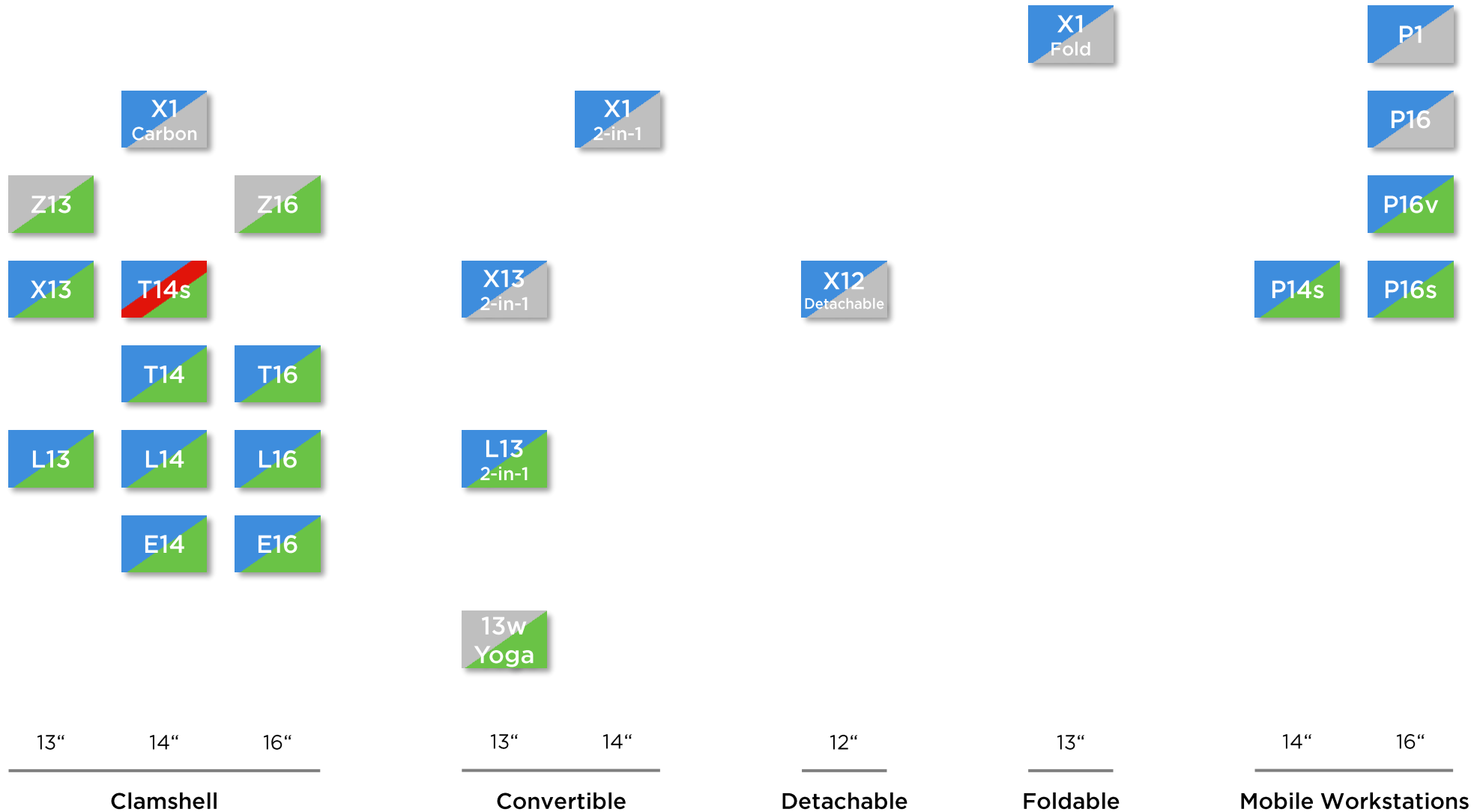




# Portfolio 2024

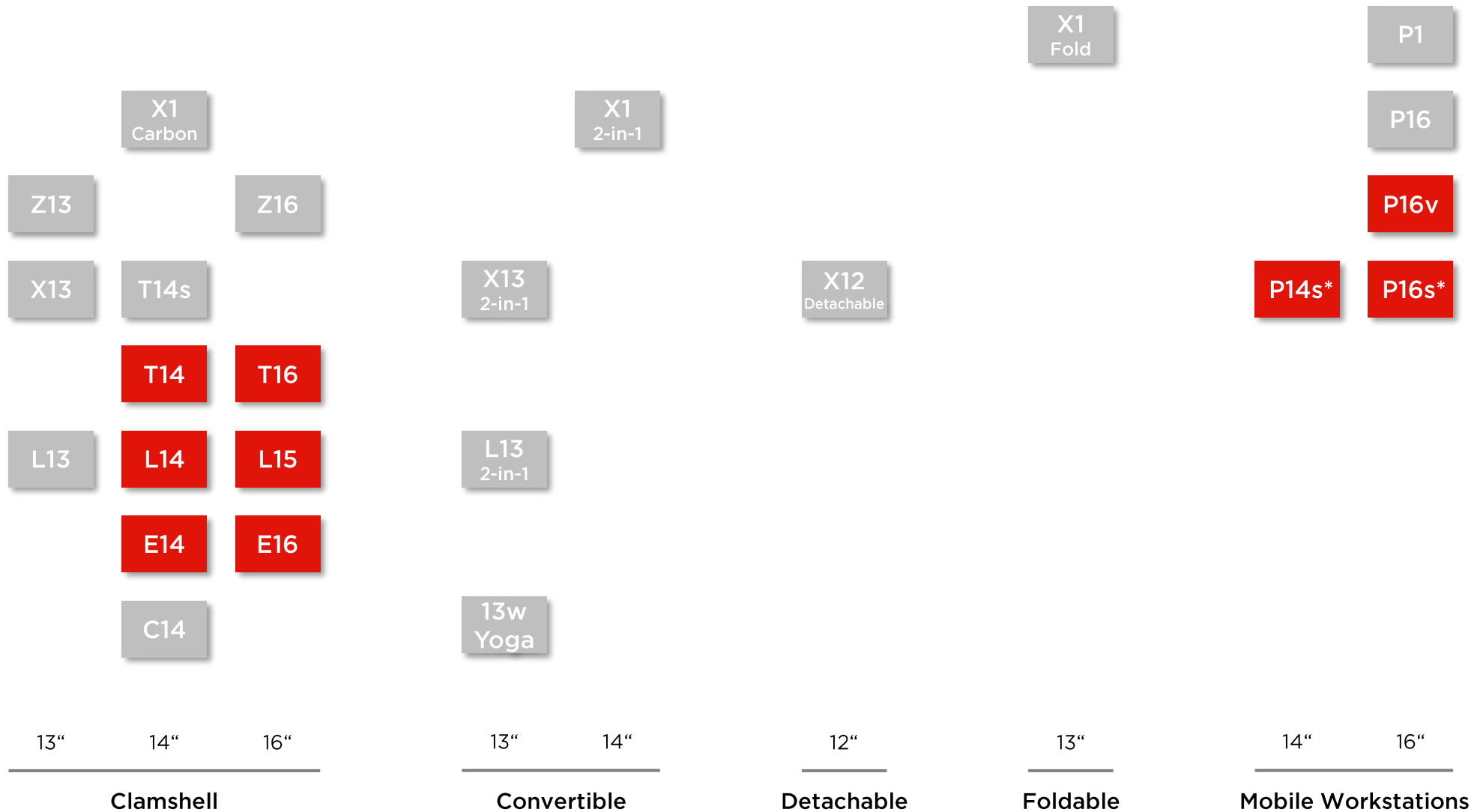


# Portfolio 2024 Processor Platforms



Intel AMD Qualcomm (ARM)

# Portfolio 2024 Ethernet Ports



 Ethernet port available

\* Trapdoor design

# ThinkPad 14" Models

Lenovo  
ThinkPad



**ThinkPad X1 Carbon (Gen 11)** ab 1,1 kg 15 mm



**ThinkPad T14s (Gen 4)** ab 1,2 kg 17 mm



**ThinkPad T14 (Gen 4)** ab 1,3 kg 18 mm



**ThinkPad L14 (Gen 4)** ab 1,4 kg 19 mm



**ThinkPad E14 (Gen 5)** ab 1,4 kg 18 mm

# ThinkPad L14 Gen 4 vs. 5



# ThinkPad L15 Gen 4 vs. L16 Gen 1



# Portfolio 2024

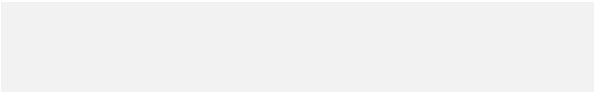
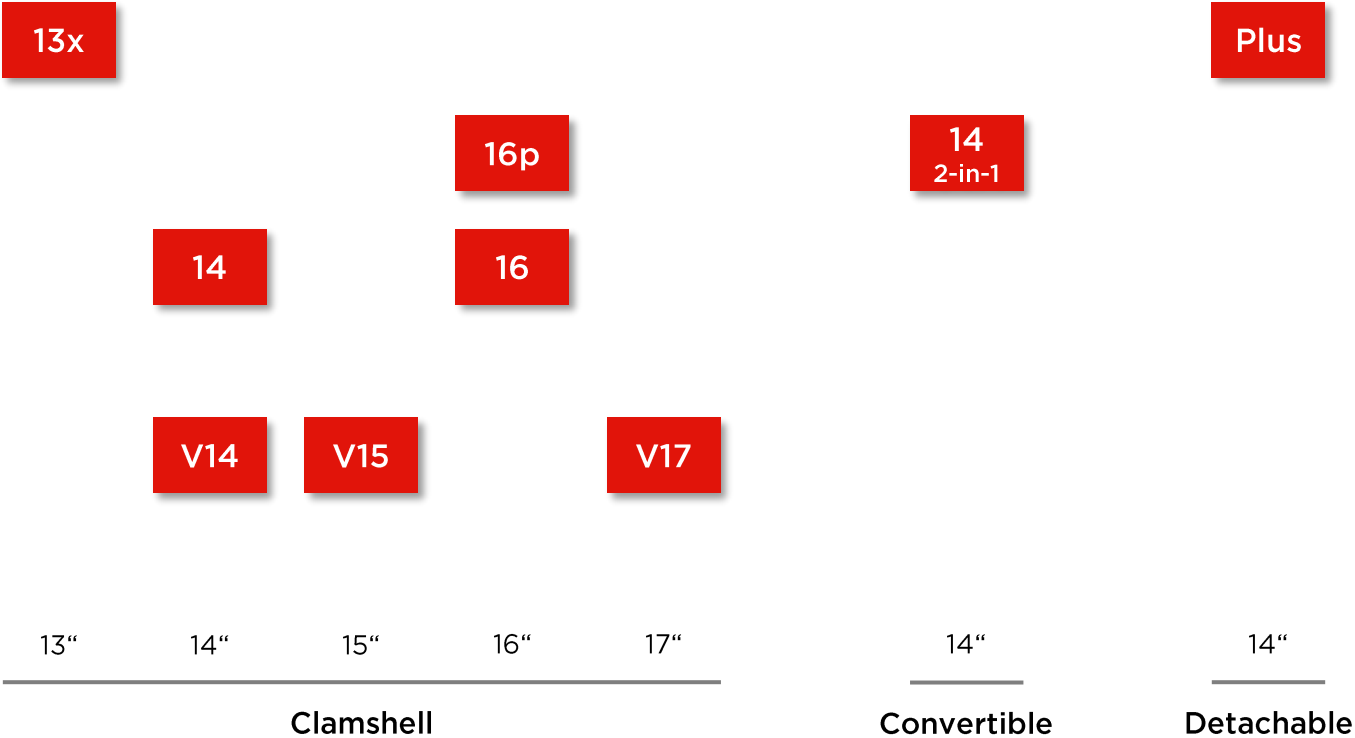


ThinkPad

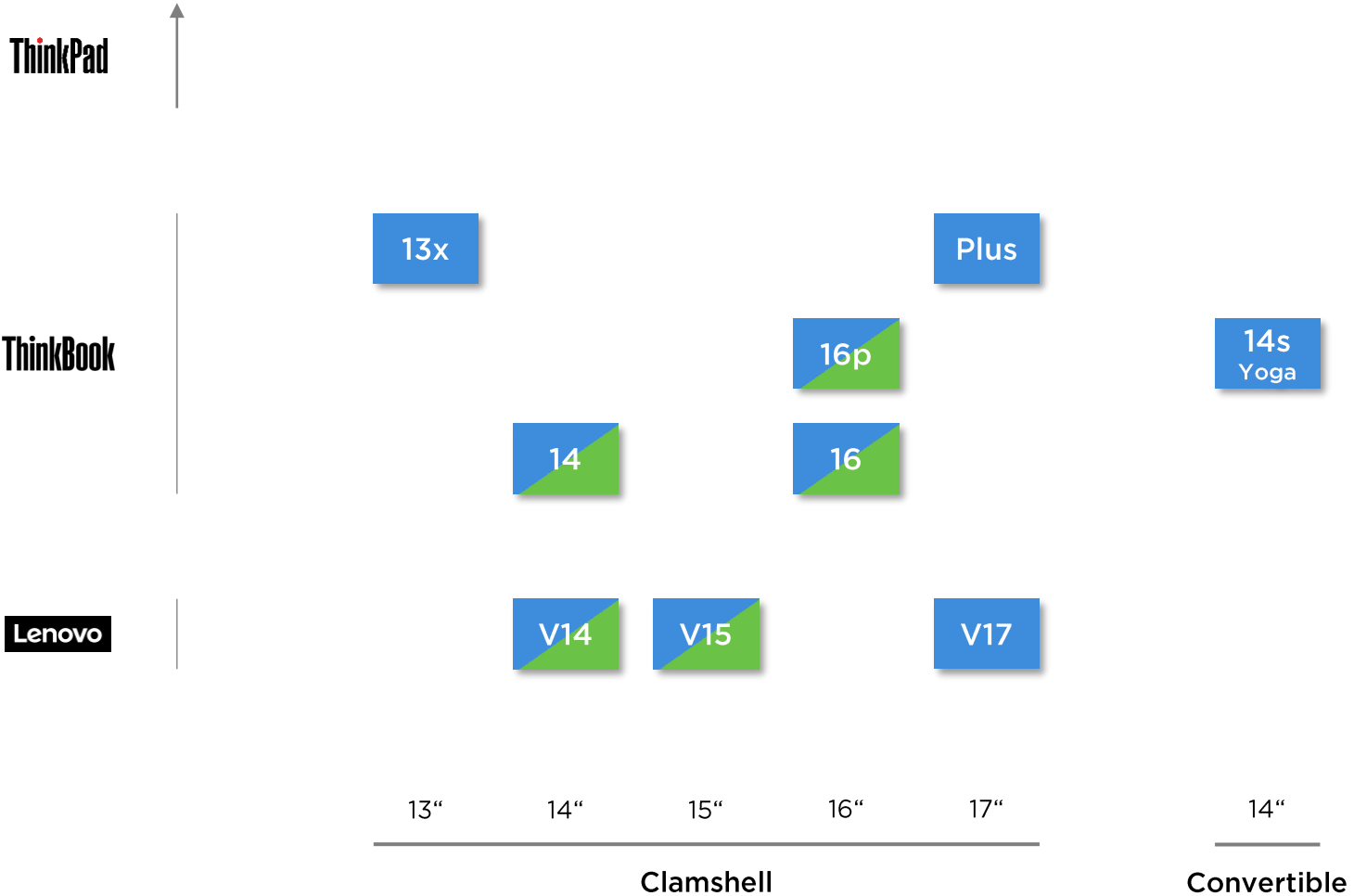


ThinkBook

Lenovo



# Portfolio 2023 Processor Platforms



Intel AMD

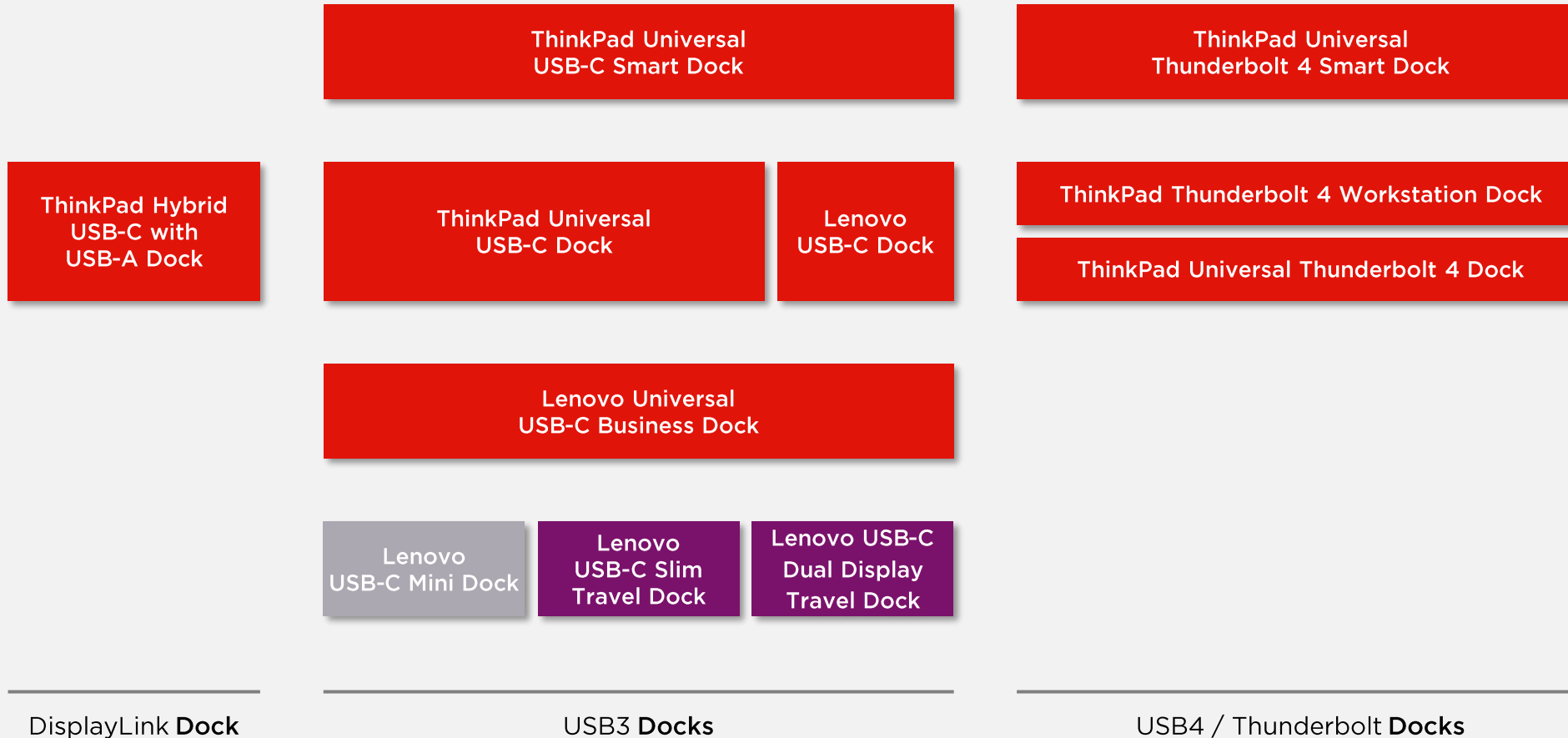


# ThinkPad Docking

# Docking Portfolio



# Docking Portfolio



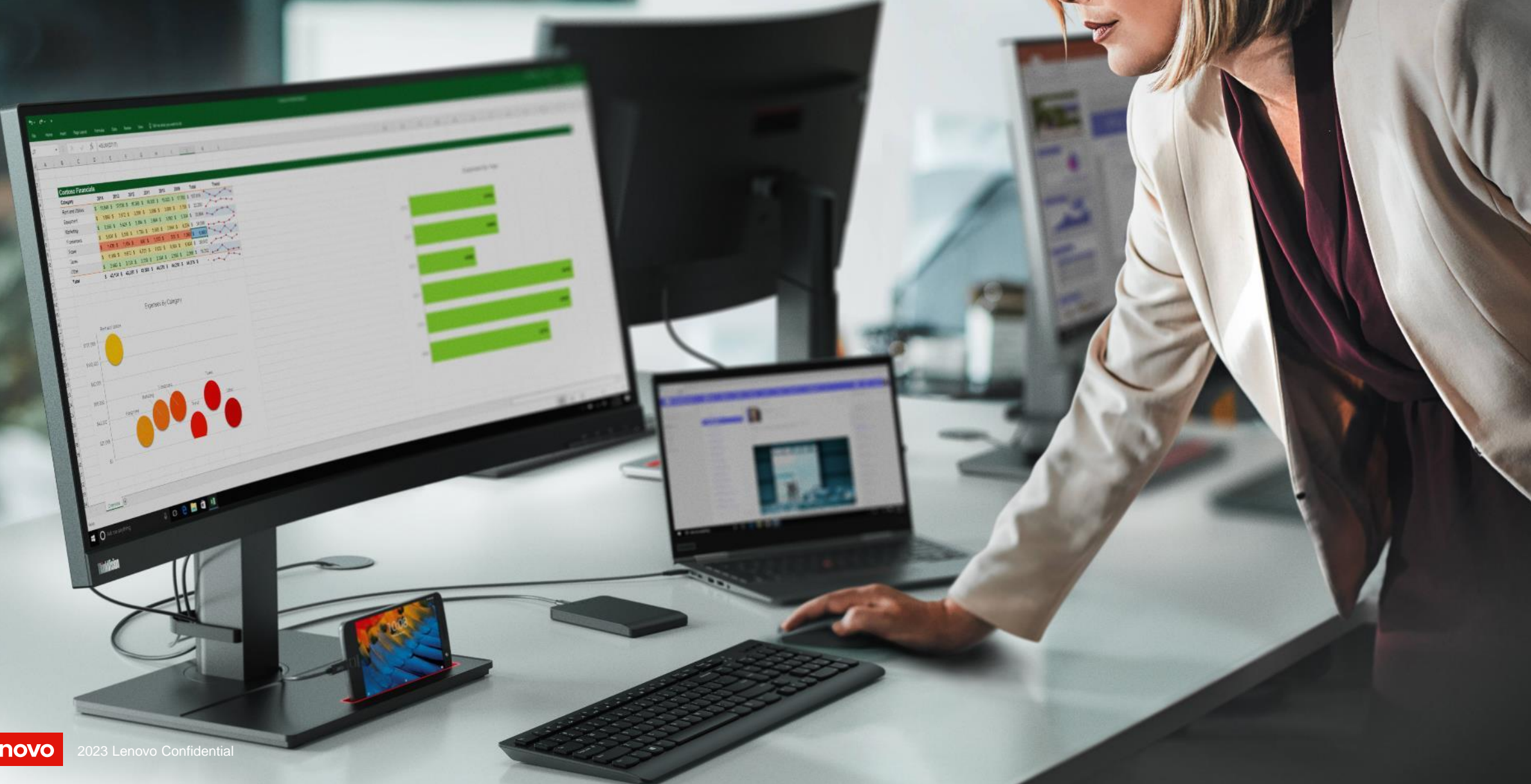
Available    New within next 6 months    EOL within next 6 months

# Docking Portfolio 2024 Specifications

	USB 3 BASED							USB 4 / THUNDERBOLT BASED		
	ThinkPad Hybrid USB-C with USB-A Dock	Lenovo USB-C Slim Travel Dock	Lenovo USB-C Dual Display Travel Dock	Lenovo Universal USB-C Business Dock	Lenovo USB-C Dock	ThinkPad Universal USB-C Dock	ThinkPad Universal USB-C Smart Dock	ThinkPad Universal Thunderbolt 4 Dock	ThinkPad Universal Thunderbolt 4 Smart Dock	ThinkPad Thunderbolt 4 Workstation Dock
P/N	40AF0135xx	tba	40B90000WW 40B90100xx	40B30090xx	40B50090xx	40AY0090xx	40B20135xx	40B00135xx	40B10135xx	40B00300xx
Video ports	2x DP 1.2 2x HDMI 2.0	1x HDMI 2.0	1x DP 1.4 1x HDMI 2.0	1x DP 1.4 1x HDMI 2.0	2x DP 1.4 1x HDMI 2.0	2x DP 1.4 1x HDMI 2.0	2x DP 1.4 1x HDMI 2.0	2x DP 1.4 1x HDMI 2.1 1x TB4	2x DP 1.4 1x HDMI 2.1 1x TB4	2x DP 1.4 1x HDMI 2.1 1x TB4
Maximum Number of Displays	2 via DisplayLink	1	2	2	3	3	3	4	4	4
Power Adapter	135 W	—	100 W (optional)	90 / 135* W	90 / 135* W	90 / 135* W	135 W	135 W	135 W	300 W
Maximum Power for Notebook Charging	90 W	65 W	65 / 100* W	65 / 100* W	65 / 100* W	65 / 100* W	100 W	100 W	100 W	230 / 100 W
Ethernet Port / vPro support	● / —	— / —	● / —	— / —	● / —	● / —	● / —	● / ●	● / ●	● / ●
Firmware Updates via Lenovo Dock Manager	○	—	—	—	○	●	●	●	●	●
Firmware Updates via Cloud	—	—	—	—	—	—	●	—	●	—
Warranty	3 Years	3 Years	3 Years	1 Year	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years

\* 135 W power supply sold separately.

# Cable Docking via Monitor



# Cable Docking via Monitor with 2<sup>nd</sup> / 3<sup>rd</sup> Screen



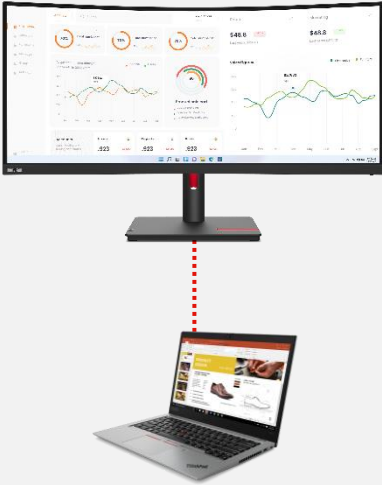
Traditional docking



Dedicated cables



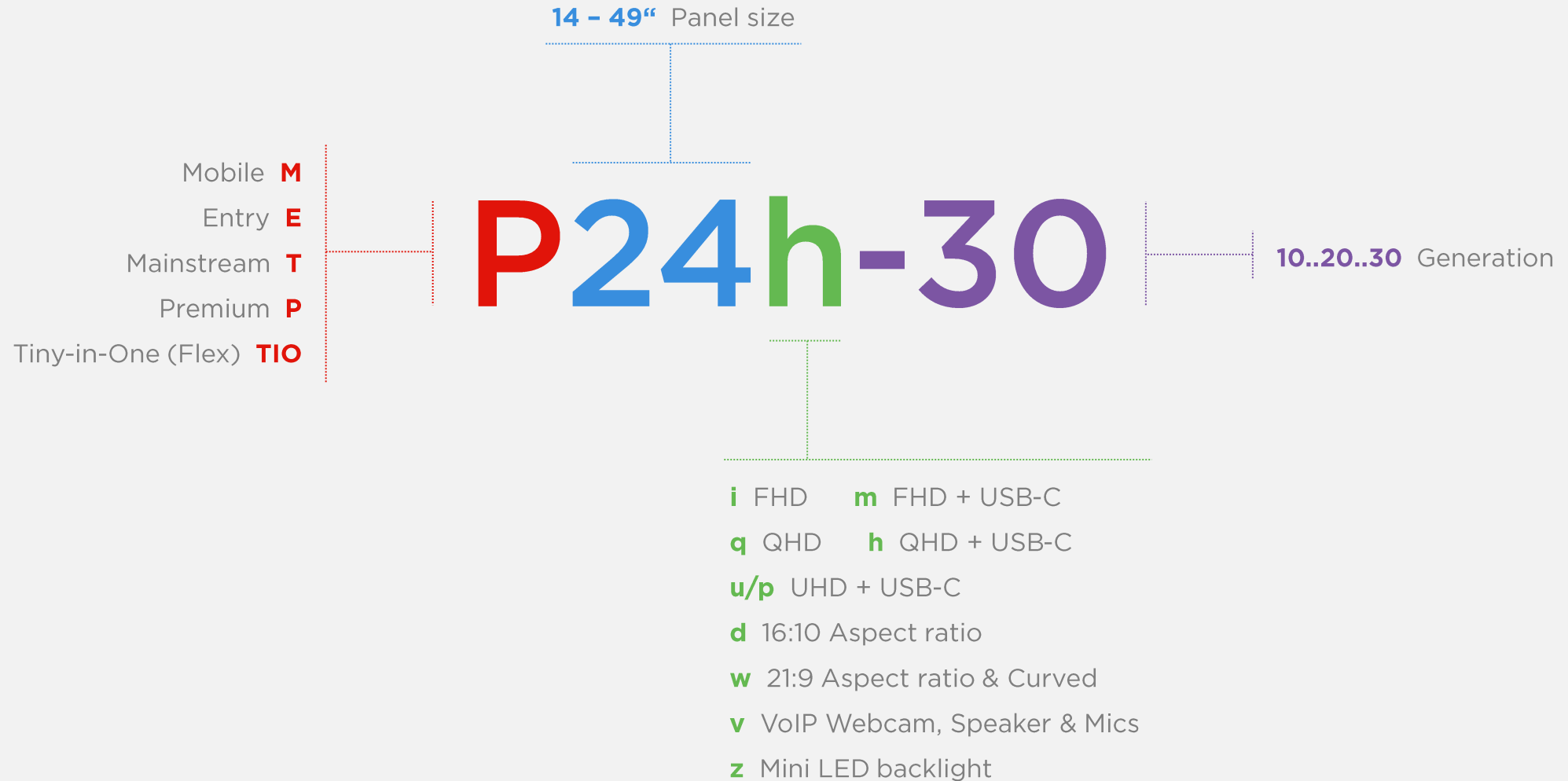
Daisy Chain



Extra wide monitor

# ThinkVision

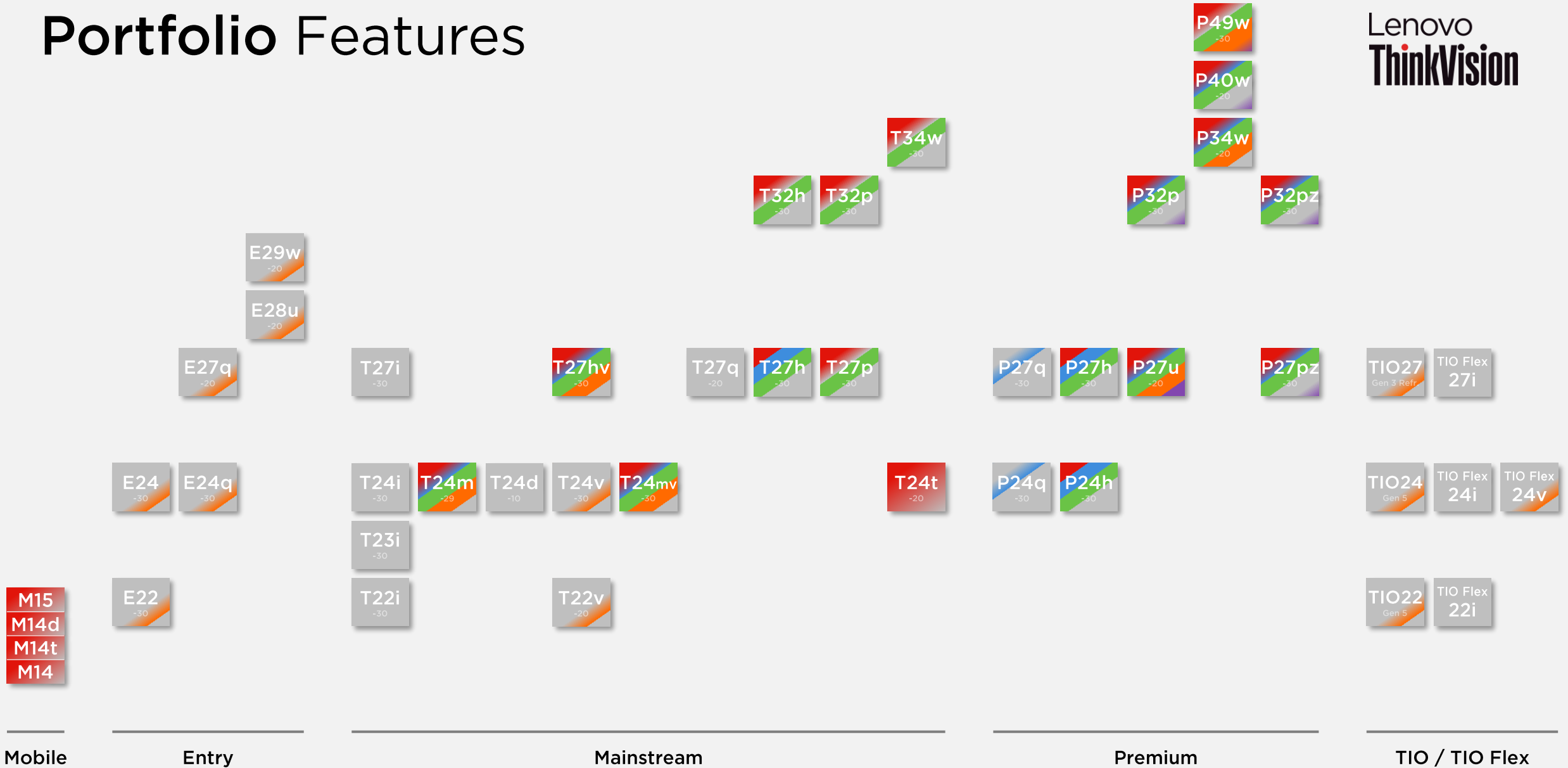
# ThinkVision NOMENCLATURE





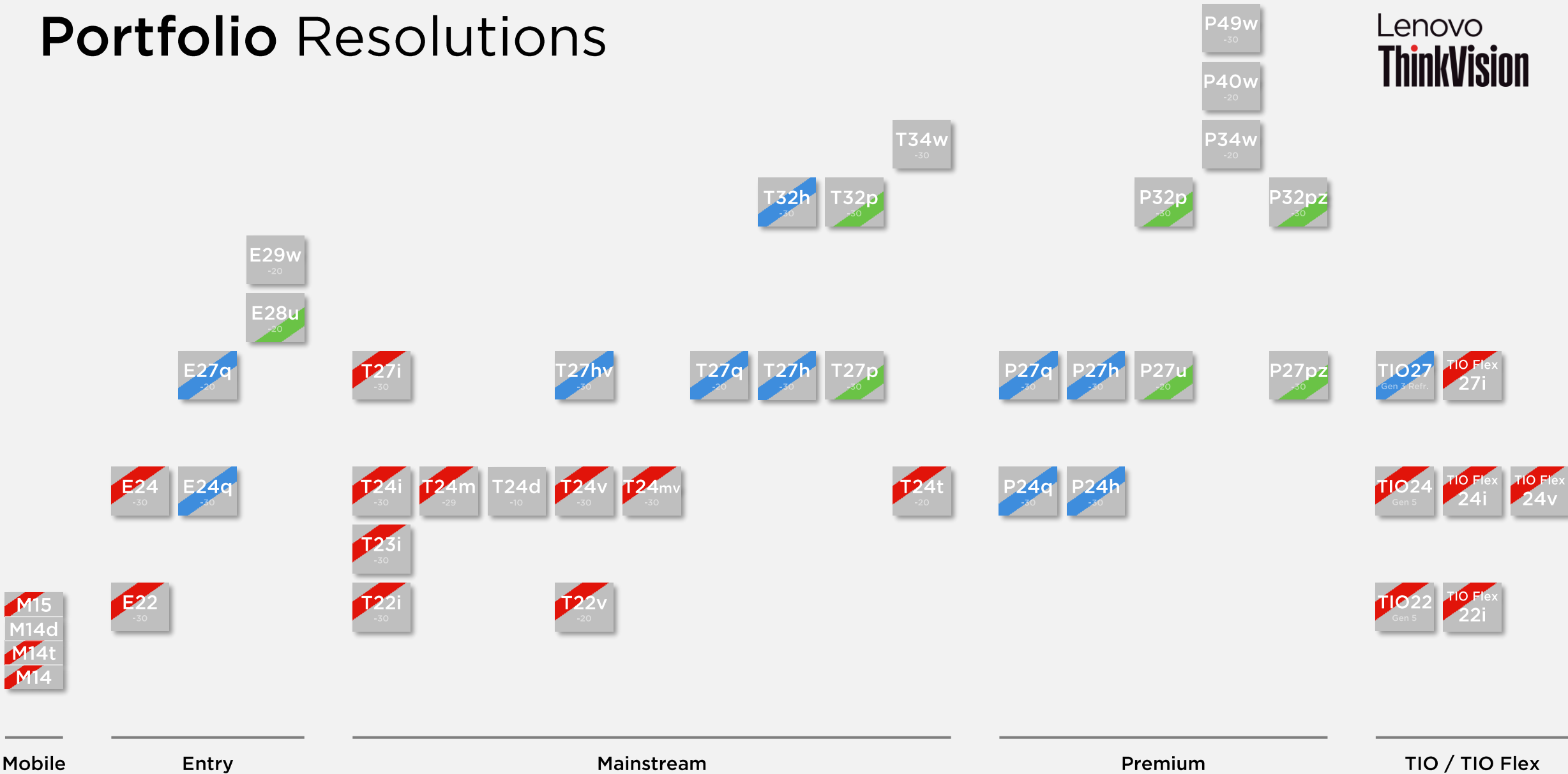
# Portfolio Features

Lenovo  
ThinkVision



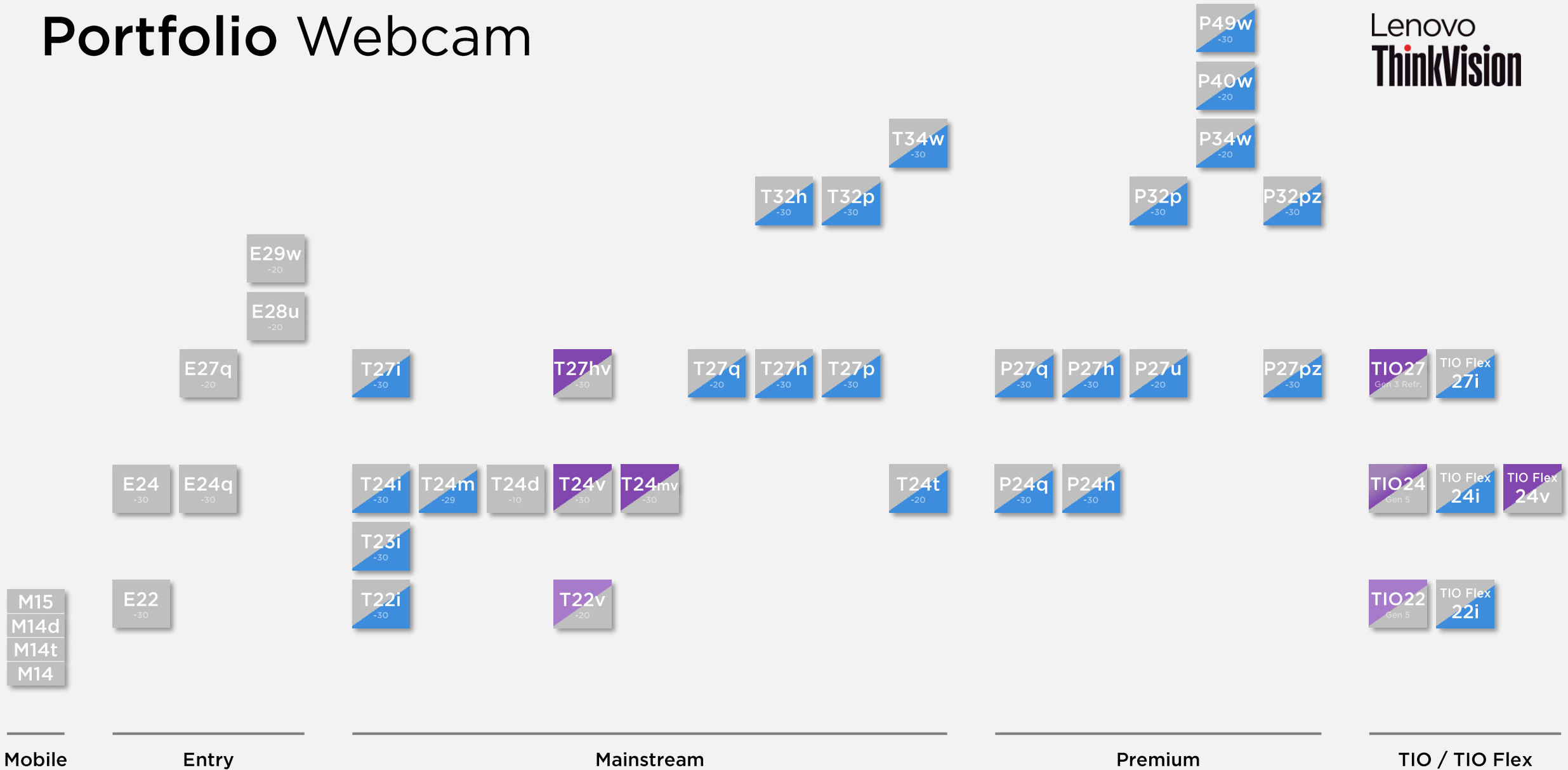
■ USB-C   
 ■ Daisy Chain   
 ■ Integrated Ethernet Port   
 ■ Integrated Speakers   
 ■ USB4/Thunderbolt

# Portfolio Resolutions



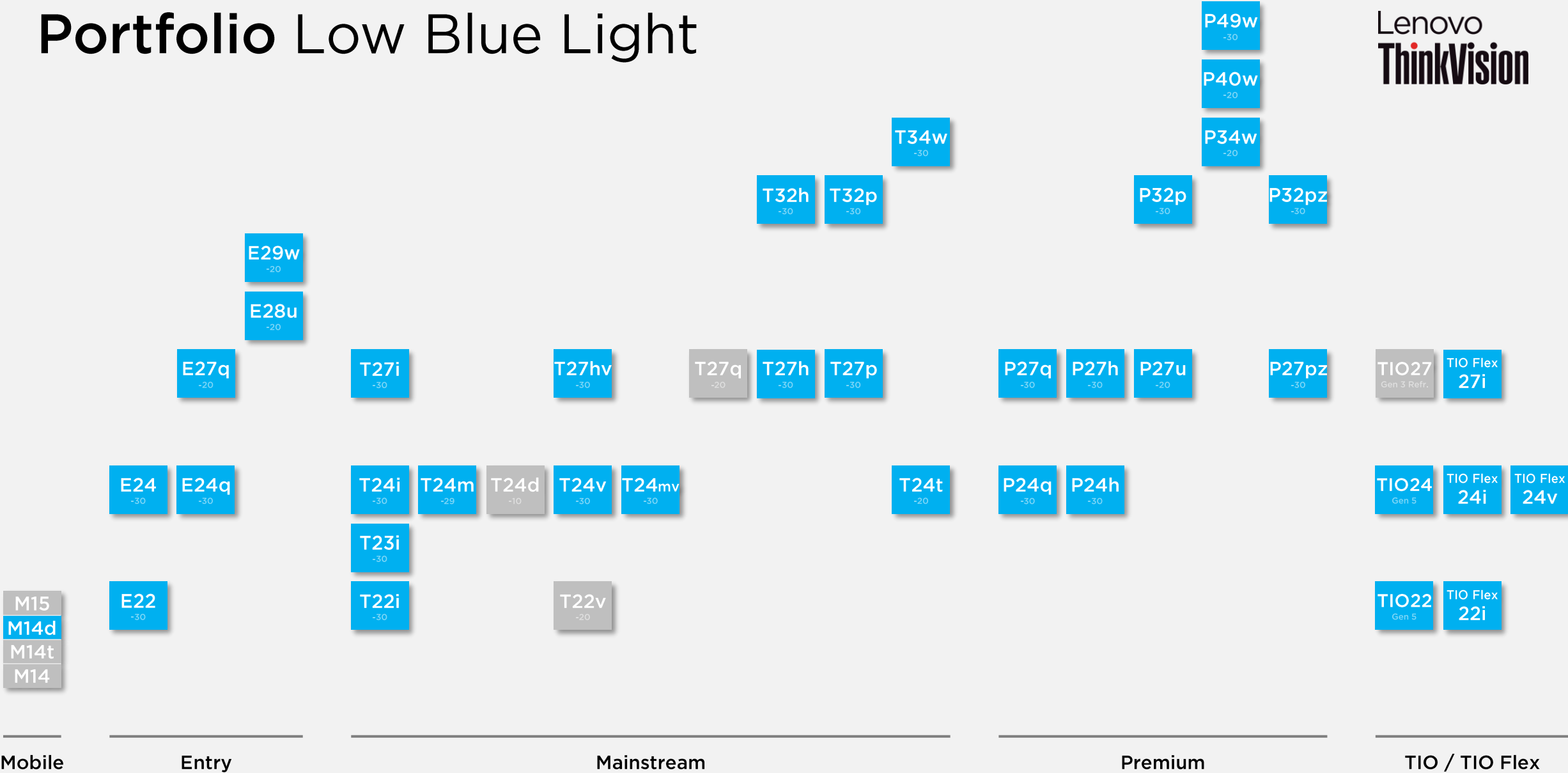
■ FHD (1920x1080)  
 ■ QHD (2560 x 1440)  
 ■ UHD (3840 x 2160)  
 ■ Others

# Portfolio Webcam



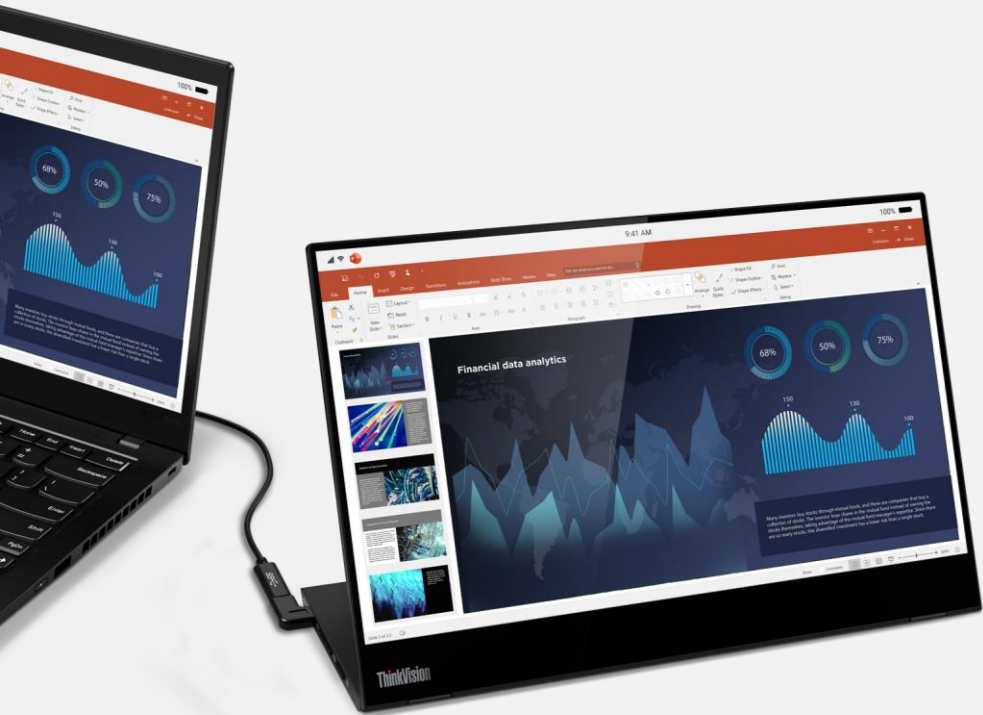
Integrated Webcam
  Integrated IR Webcam
  Compatible with optional MC50 (Non-IR) and/or MC60 (IR) Monitor Webcam

# Portfolio Low Blue Light



■ Natural Low Blue Light / Eyesafe certified

# ThinkVision MOBILE MONITORS



	M14	M14t	M14d	M15
Screen size	14"	14"	14"	15,6"
Aspect Ratio	16:9	16:9	16:10	16:9
Resolution	1920 x 1080	1920 x 1080	2240 x 1400	1920 x 1080
Panel Type	IPS	IPS	IPS	IPS
Brightness	300 nits	300 nits	300 nits	250 nits
Refresh rate	60 Hz	60 Hz	60 Hz	60 Hz
Power delivery	65 W	65 W	65 W	65 W
Weight	0,6 kg	0,7 kg	0,6 kg	0,9 kg
Touch	—	●	—	—
Anti Glare	●	—	●	●
Low Blue Light / Natural LBL	● / —	● / —	● / ●	● / —
USB-C Connectivity	●	●	●	●

# ThinkVision MC60 CAMERA & MS30 SPEAKER

FOR T & P -30 SERIES MONITORS



# ThinkVision Interactive Large Format Displays (iLFD)

# Interactive Large Format Displays



 Available



# ThinkVision INTERACTIVE LARGE FORMAT DISPLAYS

86", 75" and 65" size

4K display  
(3840x2160, 60 Hz, 400 nits, 178° angle)

20 point touch

Built-in 2x 15 W speakers  
and 8-array microphones

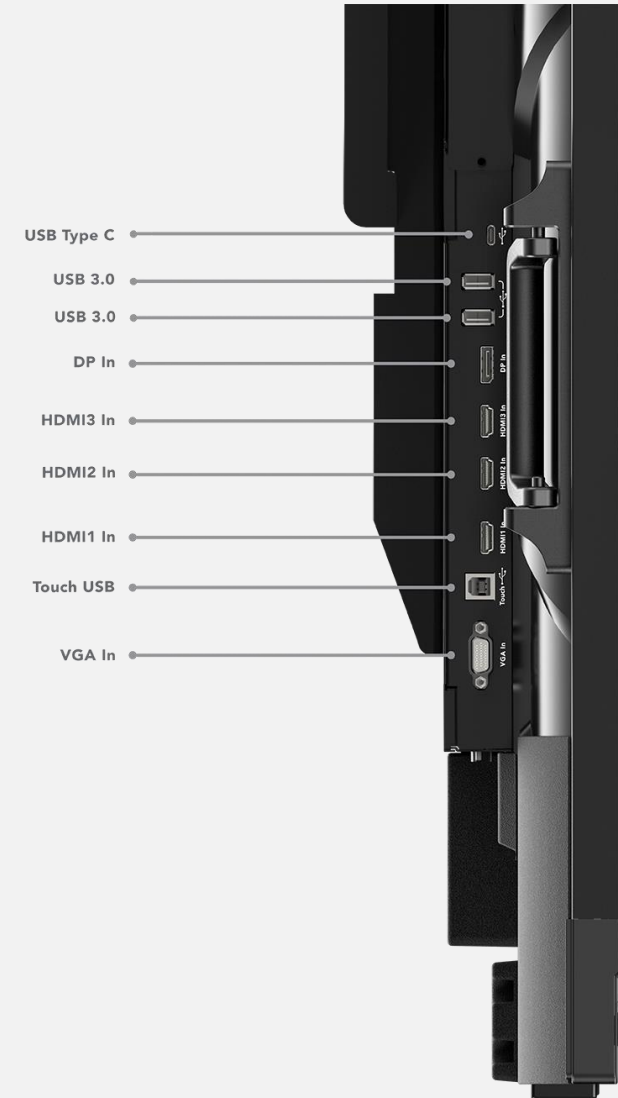
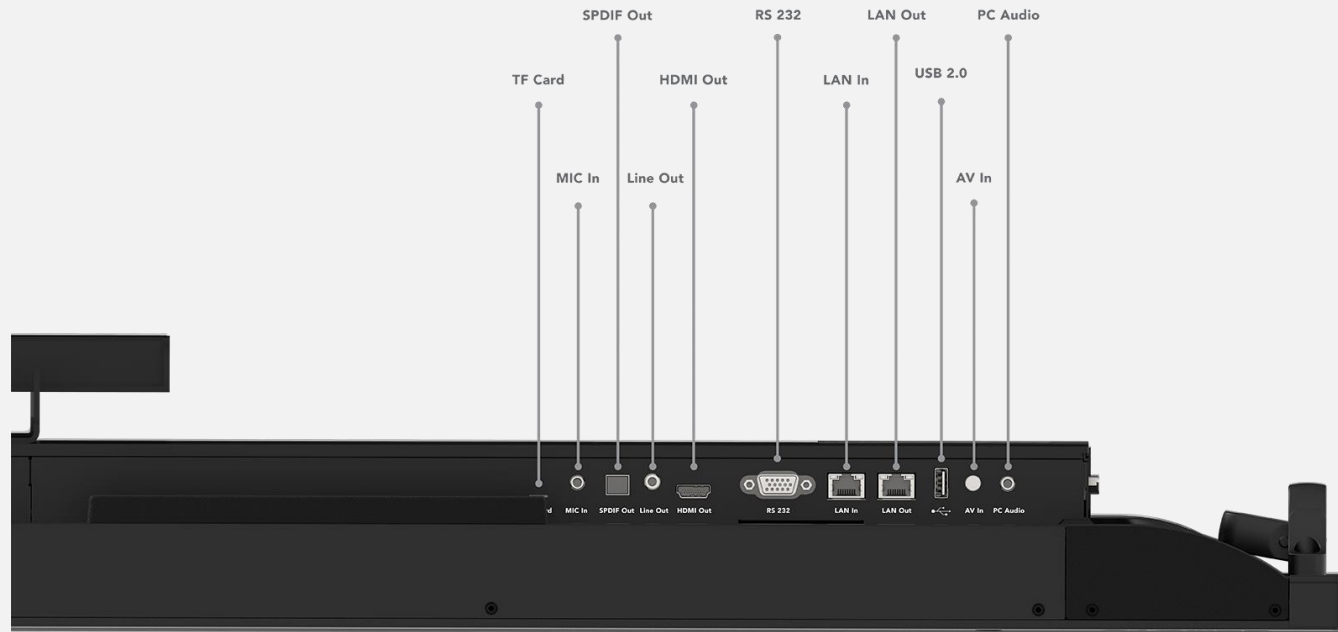
Detachable 4K "AI" camera

Ambient light sensor

Human presence sensor



# ThinkVision INTERACTIVE LARGE FORMAT DISPLAYS



# ThinkVision W20 WIRELESS DONGLE

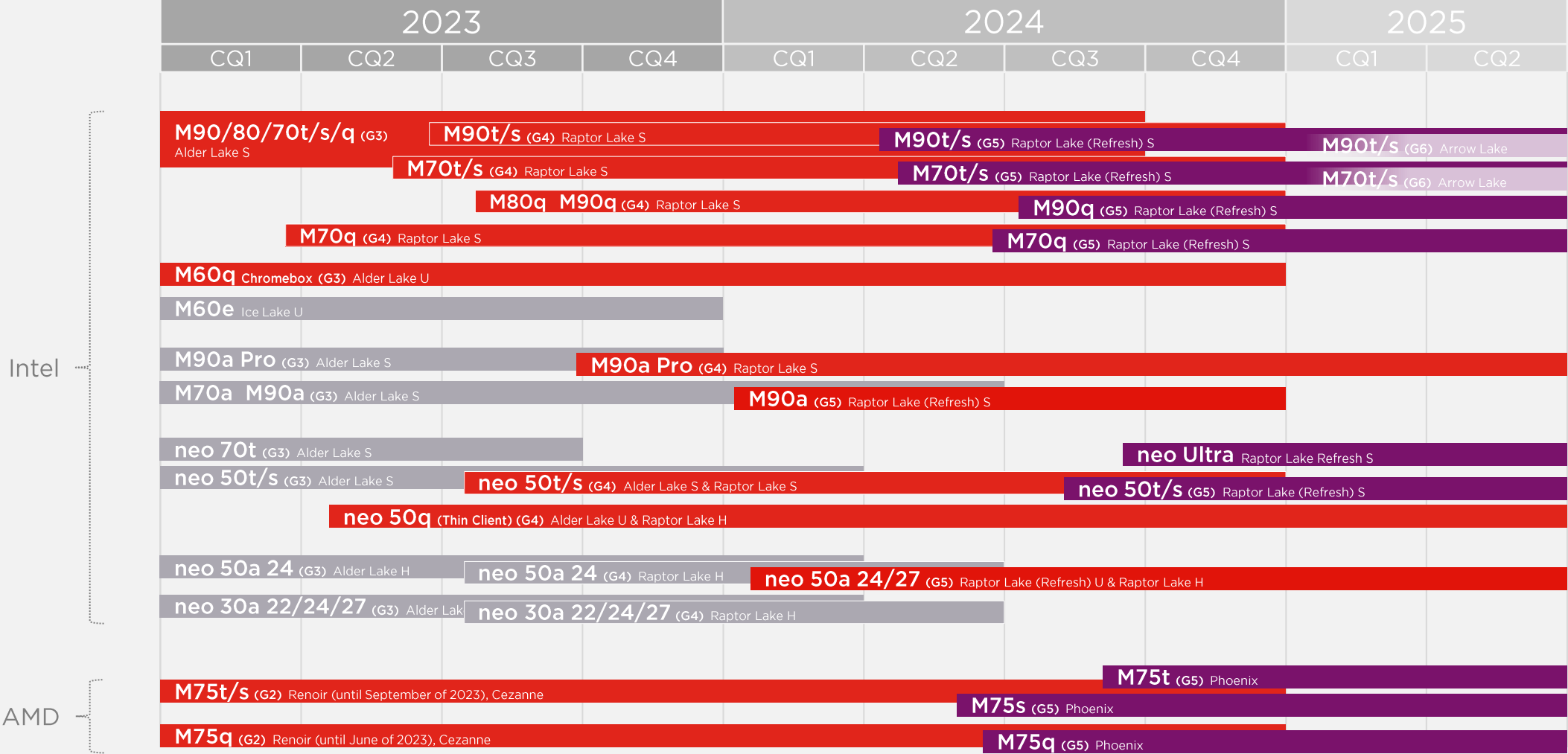


# ThinkVision INTERACTIVE LARGE FORMAT DISPLAYS



# ThinkCentre

# ThinkCentre Roadmap



# Portfolio 2024 Processor Platforms



Tower SFF Tiny AIO

ThinkCentre **M**



Tower SFF Ultra Tiny AIO

ThinkCentre **neo**

Intel AMD

# ThinkCentre DESKTOP FORM FACTORS

SFF  
8 l



Tower  
17/14 l



Tiny  
1 l

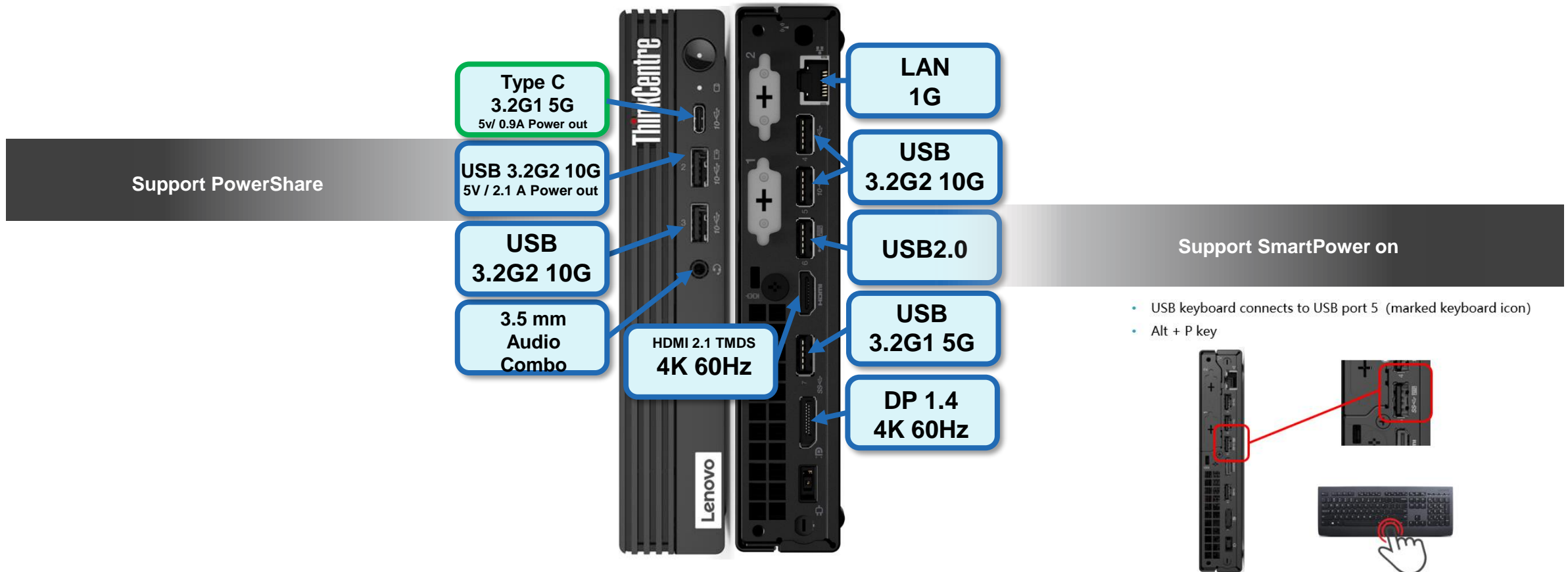


# ThinkCentre neo Form Factors



# Special Ports on Tiny

## M70q Gen4



HDMI 2.1 TMDS / DP (HBR2): 4096x2304@60Hz

# ThinkCentre TINY ECO SYSTEM



VESA Mount



Under Desk Mount



Sandwich Kit



I/O Box



Tiny and Nano  
Monitor Clamp II



Tiny Clamp Bracket  
Mounting Kit II



Vertical Stand



Dust Shield



Single Monitor Stand



Dual Monitor Stand



ThinkCentre Tiny Power Cage II

# ThinkCentre TINY-IN-ONE



→

**TINY**  
Thin Client  
Fat Client  
Workstation

**NANO**  
Thin Client  
Fat Client



**22"** Touch / Non-Touch  
**24"** Touch / Non-Touch  
**27"** Non-Touch

Only **1 POWER SUPPLY**  
Integrated **WEBCAM & SPEAKER**

# ThinkCentre TINY-IN-ONE GEN 4



# ThinkCentre TINY-IN-ONE GEN 4



# ThinkCentre TINY-IN-ONE



	★ Tiny 1 M92/p, M72e	★ Tiny 2 M93/p, M83, M73, M53, Chromebox	★ Tiny 3 M900/x, M700, M600	★ Tiny 4 M910q/x, M710q, M715q, M625q, P320	★ Tiny 5 M920q/x, M720q, M630e, P330, M75q, M90n	★ Tiny 6 M90q, M80q, M70q, P340, M75n	★ Tiny 7 M90q (Gen 2), M70q (Gen 2), P350	★ Tiny 8 M90q (Gen 3), M80q (Gen 3), M70q (Gen 3), P360	★ Tiny 9			
		★ TIO23 ohne Kamera	★ TIO22 TIO24 ohne Kamera	★ TIO22 TIO24 mit Kamera	★ TIO27 mit IR Kamera	★ TIO22 TIO24 mit IR Kamera		★ TIO Flex				
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023

# ThinkCentre All-in-One



# ThinkCentre All-in-One

Lenovo  
**ThinkCentre**



# ThinkCentre All-in-One Stands

Lenovo  
**ThinkCentre**

LTPS Stand  
(Lift Tilt Pivot Swivel)



UltraFlex Stand  
(Lift Tilt)



Tilted Stand  
(Tilt)



# ThinkCentre neo All-in-One

Lenovo  
**ThinkCentre**



# ThinkStation & ThinkPad P Workstations

# ThinkStation Desktop Workstations 2024

Lenovo  
**ThinkStation**



P3  
Tiny

P3  
Ultra

P3  
Tower

P5

PX

P7 & P8

P620

P2

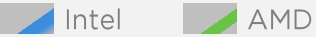
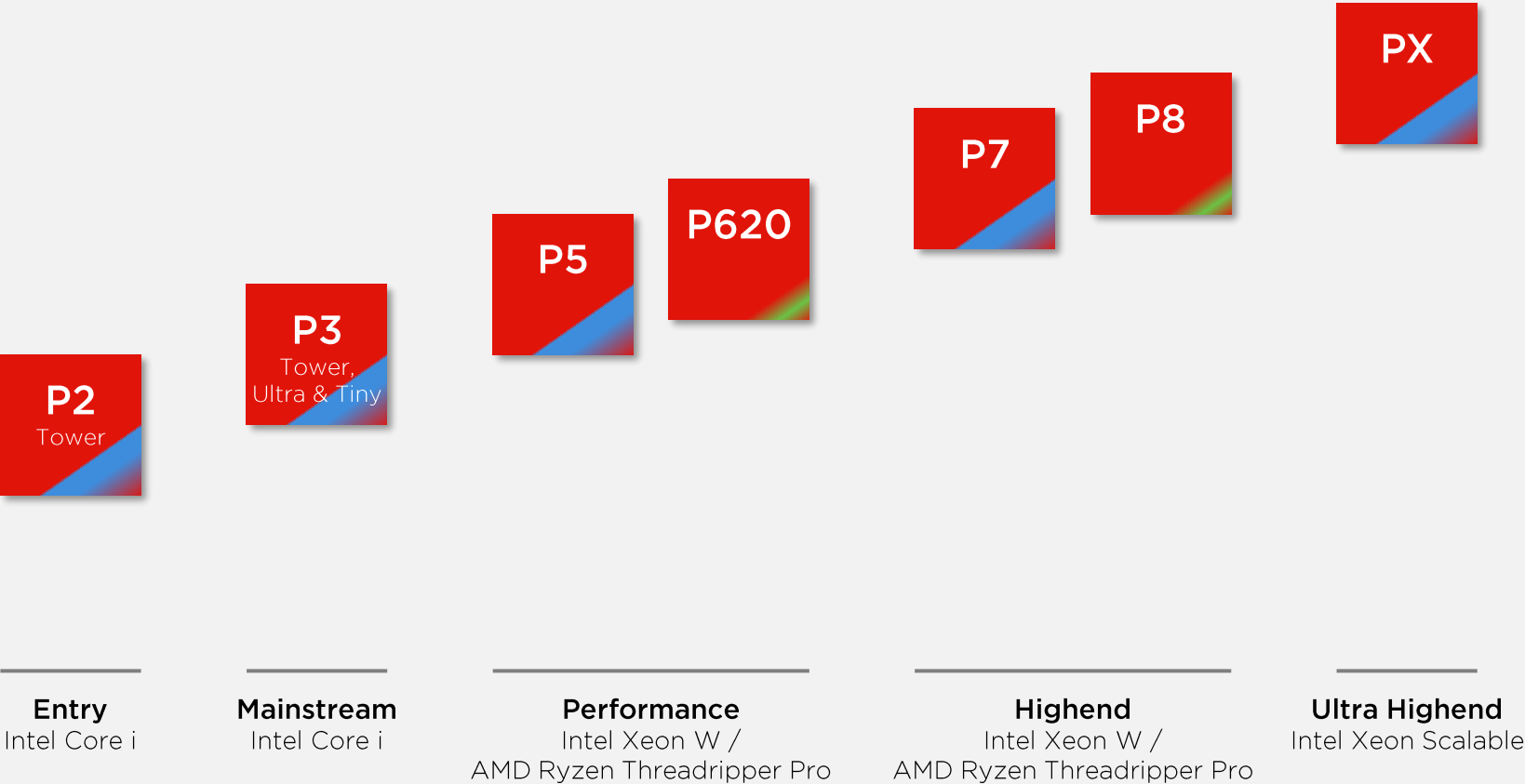
# ThinkStation Desktop Workstations 2024

Lenovo  
ThinkStation



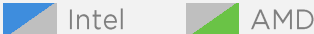
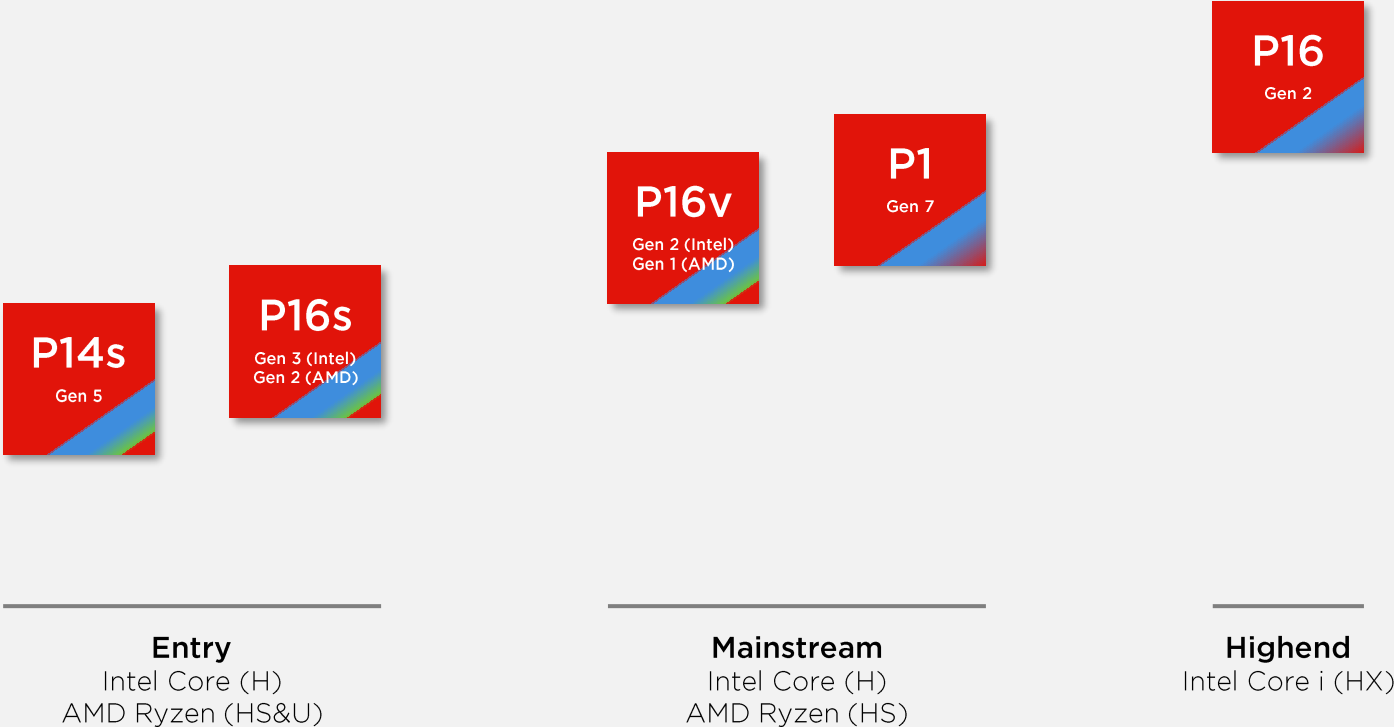
	<b>P2 Tower</b>	<b>P3 Tiny</b>	<b>P3 Ultra</b>	<b>P3 Tower</b>	<b>P5</b>	<b>P620</b>	<b>P7</b>	<b>P8</b>	<b>PX</b>
<b>Processor</b>	Intel Core i	Intel Core i	Intel Core i	Intel Core i	Intel Xeon W	AMD Ryzen Threadripper Pro	Intel Xeon W	AMD Ryzen Threadripper Pro	2x Intel Xeon Scalable
<b>Size</b>	17 l	1 l	4 l	27 l	33 l (4 HE)	33 l	39 l (4 HE)	39 l (4 HE)	55 l (5 HE)
<b>Max. Cores/Threads</b>	16/24	24/32	24/32	24/32	24/48	64/128	56/112	96/192	120/240
<b>Max. Memory (Slots)</b>	128 W	64 GB (2)	128 GB (4)	128 GB (4)	512 GB (8)	1 TB (8)	1 TB (8)	1 TB (8)	2 TB (16)
<b>Max. Storage</b>	20 TB	4 TB	16 TB	28 TB	48 TB	48 TB	52 TB	52 TB	60 TB
<b>Max. Graphics</b>	RTX A2000	T1000	RTX A5500M	RTX 5500 Ada	2x RTX 6000 Ada	2x RTX 6000 Ada	3x RTX 6000 Ada	3x RTX 6000 Ada	4x RTX 6000 Ada
<b>Max. Power supply</b>	750 W	300 W	300 W	1,100 W	1,000 W	1,000 W	1,400 W	1,400 W	2x 1,850 W

# ThinkStation Desktop Workstations 2024



[Full specifications](#) ↗

# ThinkPad Mobile Workstations 2024



[Full specifications](#) ↗



# ThinkPad Mobile Workstations 2024



	<b>P14s</b> Gen 5	<b>P14s</b> Gen 5	<b>P16s</b> Gen 2	<b>P16s</b> Gen 3	<b>P16v</b> Gen 1	<b>P16v</b> Gen 2	<b>P1</b> Gen 7	<b>P16</b> Gen 2
Display	14"	14"	16"	16"	16"	16"	16"	16"
Processor	AMD Ryzen (HS)	Intel Core (H)	AMD Ryzen (U)	Intel Core (H)	AMD Ryzen (HS)	Intel Core (H)	Intel Core (H)	Intel Core i (HX)
Max. Memory	96 GB	96 GB	64 GB	96 GB	64 GB	96 GB	64 GB	192 GB
Max. Graphics	Integrated *	RTX 500 Ada	Integrated *	RTX 500 Ada	RTX 2000 Ada	RTX 3000 Ada	RTX 3000 Ada / GeForce RTX 4090	RTX 5000 Ada / GeForce RTX 4090
Touch Display (opt.)	●	–	●	●	●	●	●	●
Max. SSD Drives	1	1	1	1	2	2	2	2
Ethernet port	●	●	●	●	–	●	–	–
WWAN	5G/4G	–	4G	4G	4G	5G	–	4G
Max. Power supply	65 W USB-C	135 W USB-C	100 W USB-C	135 W USB-C	170 W Slim Tip	170 W Slim Tip	170 W Slim Tip	230 W Slim Tip
Weight (Starting)	1.3 kg	1.6 kg	1.7 kg	1.8 kg	2.2 kg	2.2 kg	1.8 kg	2.95 kg

# ThinkReality

AR/VR Solutions

# ThinkReality Portfolio



A3

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AR  
Augmented Reality



VRX

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VR  
Virtual Reality

# ThinkReality VR USE CASES



# Optionen

# Lenovo Keyboard and Mice

## COMBO PORTFOLIO SNAPSHOT

### KEY FEATURE UPGRADES & DIFFERENCES:

Best



**Lenovo Professional Wireless Rechargeable Combo**  
4X31K03931

Wireless: Bluetooth (Dual) or USB-A Dongle  
Re-pairable dongle if lost  
Full size 3 section keyboard (low profile)  
4-way mouse scroll  
Quiet keyboard type  
Rechargeable (USB-C)  
3-year warranty

Better



**Lenovo Professional Wireless Combo**  
4X30H56796

Wireless: USB-A Dongle Only (No Bluetooth)  
Re-pairable dongle if lost  
Full size 3 section keyboard  
2-way mouse scroll  
2 AA Battery  
2-year warranty

Good



**Lenovo Essential Wireless Combo Gen 2**  
4X31N50708

Wireless: USB-A Dongle Only (No Bluetooth)  
Cannot repair dongle if lost  
2.5 section keyboard, quiet type  
2-way mouse scroll  
1 AA Battery (mouse), 1 AAA (keyboard)  
3-year warranty (upgrade of new Gen 2)

Basic



**Lenovo Essential Wired Combo**  
4X30L79883

Wired: USB-A Cable  
2.5 section keyboard  
2-way mouse scroll  
1-year warranty

Innovative Input

# Lenovo Go Wireless Split Keyboard

For perfectly natural keystrokes

Ergonomic converts will revel in the Lenovo Go Wireless Split Keyboard. With its split and sloped design that promotes a more natural finger placement, and makes hand, wrist, and shoulder fatigue a thing of the past. And typing has never felt this good, either.



Ergonomic split design



Spill-resistant soft palm rest

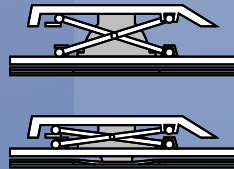


Natural typing experience



1.8 mm travel distance and scissor-switch keys

For a more comfortable typing experience with tactile feedback.



## Natural split design



13-degree S-play design — allows typing with wrists in straight position. Less strain on wrists, neck, and shoulders.




















11-degree vertical tenting — untwists arm muscles for a more natural typing posture. Helps relax forearm muscle.



4-degree negative tilt riser — to reduce wrist pain.

# Lenovo Virtual Collaboration Portfolio Snapshot: Audio and Video

 <p>ThinkPad X1 Wireless ANC Headphones</p>	 <p>Lenovo Go Wireless ANC Headset</p>	 <p>Lenovo VOIP Pro Headset</p>	 <p>Lenovo Go USB-C ANC In-Ear Headphones</p>	 <p>ThinkVision MC30(S) MC3 Monitor Soundbar</p>	 <p>ThinkVision MC50, MS60(S), MC60 Monitor Webcam</p>
 <p>Lenovo Go Wireless ANC Headset</p>	 <p>Lenovo VOIP Pro Headset</p>	 <p>Lenovo USB-B Stereo, without or with Control Box</p>	 <p>Lenovo Bluetooth In-Ear Headphones</p>	 <p>Lenovo 700 Ultraportable Bluetooth Speaker</p>	 <p>Lenovo Performance FHD Webcam (Windows Hello)</p>
 <p>Lenovo Go Wired ANC Headset</p>	 <p>Lenovo Go Wired ANC Headset</p>	 <p>Lenovo USB Mono</p>	 <p>Lenovo In-Ear Headphones (Analog 3.5mm, USB-C)</p>	 <p>Lenovo Go USB-C Wired Speakerphone – Teams Certified</p>	 <p>Lenovo Essential FHD Webcam</p>
 <p>Lenovo Go USB-C ANC In-Ear Headphones</p>	 <p>Lenovo Go USB-C Wired Speakerphone</p>	 <p>Lenovo Essential Stereo 3.5mm</p>			



Active Noise Cancelling (ANC)

Microsoft Teams Certified

Headsets (On-Ear)

Headphones (Earbuds)

Speakerphones

Webcams



# ThinkPad Carrying Cases

- Protective, Stylish, Professional
- Limited Lifetime Warranty
- Sustainably Designed



## Better

ThinkPad Essential Plus (Eco)  
16" Backpack 4X41A30364  
16" Topload 4X41A30365



## Good

ThinkPad Essential (Eco)  
16" Backpack - 4X41C12469  
16" Topload - 4X41C12468  
13/14" Topload - 4X41D97727



## Best

ThinkPad Professional Gen 2 (Eco)  
16" Backpack 4X41M69794  
16" Topload 4X41M69795  
13/14" Topload 4X41M69796



ThinkPad Professional Sleeves  
13" 4X41L51715  
14" 4X41L51716



ThinkPad Sleeves  
12": 4X40N18007  
13": 4X40N18008  
14": 4X40N18009  
15": 4X40N18010

# Preventative Security with Physical Accessories: Lenovo Privacy Screens and Locks



## Privacy Filters (External)

Protect sensitive information from onlookers with privacy screens. Compatible filters for over 90% of Lenovo monitors and laptops:

[Browse Lenovo catalogue](#)



## Locks

Prevent theft with locks for PCs, monitors, and docking stations, include master key option:

[Browse Lenovo catalogue](#)



# Services, Software & Solutions

# Lenovo Lifecycle Services & Solutions for

## 1 PLAN



- ▶ Consult & Implement
- ▶ Assessments
- ▶ Security Strategy
- ▶ Refresh Planning
- ▶ Responsibility for nature
- ▶ Finance & DaaS

## 2 CONFIGURE



- ▶ Image / Preload & Application Load
- ▶ Custom BIOS Settings
- ▶ Labeling, Tagging, Laser Etching
- ▶ Over Packing Services & Drop in the Box
- ▶ Bitlocker Encryption
- ▶ Depot Services

## 3 DEPLOY



- ▶ Concierge / Tech Desk
- ▶ Data Migration
- ▶ White-glove Deployment
- ▶ User Self-service
- ▶ Autopilot
- ▶ Domain Join
- ▶ Online Data Backup

## 4 SUPPORT



- ▶ Premier Support Premier Support PLUS
- ▶ Warranty Support
- ▶ Accidental Damage Protection
- ▶ Sealed Battery Warranty & Keep Your Drive
- Managed Service Desk L1-3
- ▶ Cloud Recovery
- ▶ Smart Vending / Lockers

## 6 RETIRE

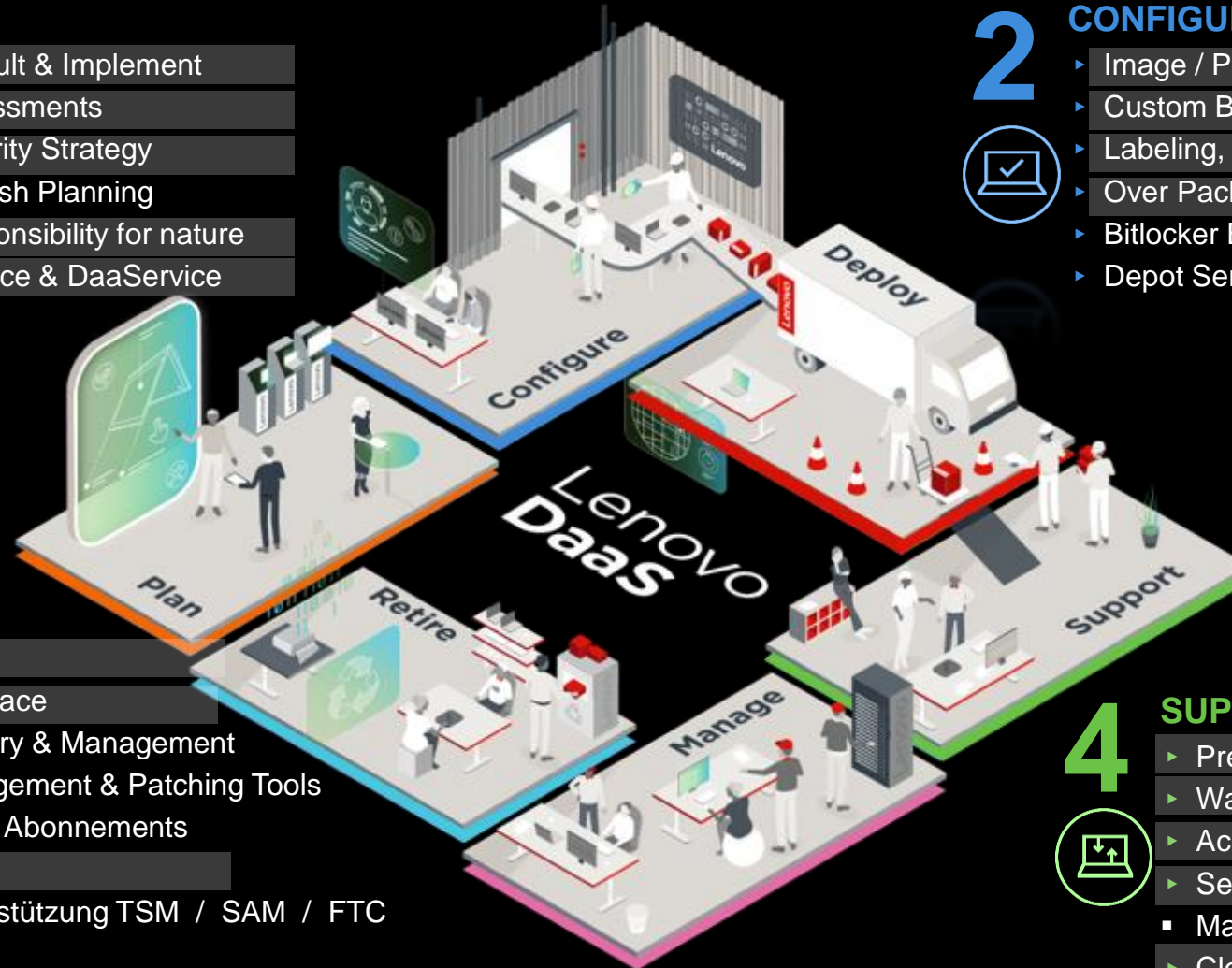


- ▶ Packaging
- ▶ Logistics
- ▶ Data Wipe
- ▶ Asset Disposition

## 5 MANAGE



- ▶ SW Solutions
- ▶ Smart Workplace
- ▶ Asset Inventory & Management
- ▶ Device Management & Patching Tools
- ▶ Microsoft 365 Abonnements
- ▶ DaaS
- ▶ Betriebsunterstützung TSM / SAM / FTC



# Öffentliche Beschaffung

# Key Facts Öffentliche Beschaffung bei Lenovo

- Kein Direct Business → via Business Partner AtData
- Topseller vs. Konfigurationen (Lieferzeit, Flexibilität)
- Alle gängigen Zertifizierungen (E-TEC, TCO, GS/CB, EnergyStar, RoHS, ...)
- Ersatzteilverfügbarkeit 5 Jahre
- Teststellungen + Benchmarks via Dienstleister MKCL
- Direkte Unterstützung AtData + Lenovo bei Markterkundung + technischen Leistungsverzeichnissen



Kamera gern  
anschalten



Ton jetzt  
anschalten

# Vielen Dank für Ihre Aufmerksamkeit, jetzt ist Zeit für Ihre Fragen!

Sie erreichen uns auf jederzeit über unsere Homepage [www.system.ag](http://www.system.ag)

