Lynk U4

flykantech.com USB4 High-Speed Hub | **All Type-C** | **Up to 40 Gbps / 240 W PD EPR**

EN

Rev 1.0 | 2026-11-15



40 Gbps	240 W	8K@60Hz	1 → 4
USB4 ×2	PD 3.1 EPR	DP ALT MODE	TYPE-C PORTS

01 OVERVIEW

The Lynk U4 Series USB4 Hub (Lynk U4) from flykantech.com is an all Type-C high-performance USB4 hub built for power users, engineering labs and bandwidth-demanding workflows. One USB4 Type-C upstream port splits into four Type-C downstream ports: one multifunctional 40 Gbps USB4-C port with DP Alt Mode and pass-through PD, a second 40 Gbps data-only USB4-C port, plus two 20 Gbps USB 3.2 Gen2×2 Type-C ports. It solves common pain points of premium laptops: limited native high-speed ports, conflicts between external high-resolution displays and NVMe storage, and unstable 40 Gbps performance on generic docking stations under heavy load. It is ideal for video creators, multi-monitor workstation users, hardware engineers and lab test engineers.



flykantech.com Lynk U4
USB4 High-Speed Hub

Equipped with a USB-IF certified controller, it natively supports USB4, Thunderbolt 3 / 4, DP 2.1, PD 3.1 EPR and PCIe tunneling. For full performance, the host must provide a native USB4 or Thunderbolt port; desktop PCs require a motherboard-integrated USB4 controller or a certified Thunderbolt add-in card. The monolithic 6063 aluminum shell with integrated cooling fins ensures stable sustained performance at full speed. Compact and lightweight, it runs driverless plug-and-play on Windows, macOS, Linux and Android.

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01 SPECIFICATIONS

INTERFACE & HARDWARE

Model	Lynk U4
Product Line	flykantech.com Lynk U4 Series
Upstream	1 × USB4 Type-C
Downstream Port 1	Type-C, Data + PD + DP Alt Mode; up to 40 Gbps, DP Alt Mode up to 8K@60 Hz, PD 3.1 EPR up to 240 W
Downstream Port 2	Type-C, data-only, up to 40 Gbps
Downstream Port 3	Type-C, data-only, up to 20 Gbps (USB 3.2 Gen2×2)
Downstream Port 4	Type-C, data-only, up to 20 Gbps (USB 3.2 Gen2×2)
Controller	Realtek RTS5490, USB-IF Certified
Supported Protocols	USB4, Thunderbolt 3 / 4, DP 2.1, PD 3.1 EPR, PCIe Tunneling
OS Compatibility	Windows / macOS / Linux / Android, driverless plug-and-play
Housing	6063 extruded aluminum with integrated cooling fins
Dimensions	92 × 52 × 16 mm
Weight	Approx. 102 g
Host Requirement	Native USB4 / Thunderbolt port; desktops require onboard USB4 controller or certified Thunderbolt AIC
Notes	Shared USB4 link bandwidth; 240 W EPR requires compliant EPR power supply and cable; certified USB4 cable required for full 40 Gbps

02 KEY FEATURES

- One USB4 input expands to four high-speed Type-C outputs
- Port 1: Data, PD and DP Alt Mode; up to 40 Gbps, 8K@60 Hz video, PD 3.1 EPR up to 240 W
- Port 2: Data-only, up to 40 Gbps
- Port 3 / Port 4: Data-only, up to 20 Gbps
- USB-IF certified controller with native USB4, Thunderbolt 3/4, DP 2.1, PD 3.1 EPR and PCIe tunneling
- Plug-and-play, no driver required for Windows, macOS, Linux and Android
- Field-upgradable firmware for ongoing performance improvements
- Aluminum thermal housing for reliable operation under sustained heavy load

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01 IMPORTANT NOTES

- Upstream requirement: Full performance is only available when connected to a native USB4 or Thunderbolt port. Standard USB-C or USB 3.x ports cannot deliver 40 Gbps, video output or PD pass-through. Desktop systems need an onboard USB4 controller or a certified Thunderbolt add-in card.
- Shared bandwidth: The USB4 link is a shared pipe. When multiple ports run at full load, throughput will be dynamically scheduled and not all ports can hit their peak rated speed simultaneously.
- 240 W PD prerequisite: 240 W PD 3.1 EPR on Port 1 needs a compliant EPR power supply and EPR cable. Ordinary PD chargers and cables cap at lower power and cannot trigger 240 W.
- Video limitation: DP Alt Mode is exclusive to Port 1; all other ports are data-only. Successful video output depends on the host, cable and display capabilities.
- Cable selection: Use certified USB4 or Thunderbolt cables to achieve 40 Gbps; generic USB-C cables rated for 20 Gbps or 10 Gbps will fall back automatically.
- Power note: This hub has no built-in power supply. When attaching high-power peripherals, use a powered upstream source to avoid under-powering connected devices.
- Thermal guidance: Cooling fins must remain unobstructed. Do not cover or enclose the hub in tight spaces. Moderate warming under continuous heavy load is normal.
- Peripheral compatibility: Driverless operation does not guarantee compatibility with every peripheral. Some specialized industrial hardware or custom firmware devices require their own drivers.

02 APPLICATIONS

- Premium creator workstations: concurrent high-speed storage arrays and high-resolution displays
- Hardware engineering labs: PCIe tunneling debugging, high-speed peripheral and signal validation
- Thunderbolt / USB4 host expansion: adding scarce high-speed Type-C ports to thin-and-light laptops
- Bulk project deployment: stable solution for research labs, test benches and OEM / ODM integration
- High-speed data acquisition: paired with 40 Gbps storage for fast large-file ingestion
- Multi-monitor desktop setups: driving high-resolution external displays via Port 1 DP Alt Mode

01 HOST COMPATIBILITY GUIDE

Core requirement: To run the Lynk U4 (Realtek RTS5490) at full capability — 40 Gbps, DP Alt Mode, PCIe tunneling and PD 3.1 EPR 240 W — the host must provide a USB-IF certified USB4, Thunderbolt 4 or Thunderbolt 5 host port. Ordinary USB-C or USB 3.2 Gen2×2 (20 Gbps) ports are degraded-mode only — no video tunneling, no PCIe tunneling, no 240 W EPR. A "20G Type-C" motherboard does not qualify, even at Gen2×2.

02 INTEL PLATFORMS (NATIVE REAR TB4 / USB4)

Z890

- ASUS ROG Maximus Z890 Extreme / Apex / Hero
- ASUS ROG Strix Z890-E / -F
- GIGABYTE Z890 AORUS Extreme / Master / Pro USB4
- MSI MEG Z890 Ace / Godlike

Z790 (MOST COMMON)

- ASUS ROG Maximus Z790 Extreme / Hero / Formula
- ASUS ROG Strix Z790-E / -F / -A WIFI (rear TB4)
- GIGABYTE Z790 AORUS Master / XTREME
- MSI MEG Z790 Godlike / ACE, MPG Z790 Carbon WIFI

Z690 / B760 / B660 / H770 / H670

- Z690: high-end Creator / Extreme editions with rear TB4
- B760 / B660: only a few Creator / premium editions have rear TB4; most are limited to 20 Gbps
- H770 / H670: rear TB4 / USB4 rare — usually only an internal TB header

Thunderbolt 4 header route: Boards with an internal TB4 header also fully support the Lynk U4 via an ASUS ThunderboltEX 4, GIGABYTE GC-Titan Ridge or MSI TB4 card — enable Thunderbolt + PCIe tunneling in BIOS; DP IN is needed for video.

03 AMD PLATFORMS (NATIVE USB4)

RYZEN 7000 / 8000 / 9000 + X670E / X870E CREATOR BOARDS (MOST RELIABLE)

- ASUS ProArt X670E-Creator WIFI / ProArt X870E-Creator WIFI (dual USB4 with DP IN — recommended)
- MSI MEG X670E ACE / X870E ACE
- GIGABYTE X670E AORUS Master / X870E AORUS Master USB4
- B650E / B850E: only a few high-end Creator editions have native USB4; ordinary B650 / B850 have none

Key points: AMD native USB4 is mostly ASMedia ASM4242 and needs a dedicated DP IN for DP Alt tunneling; without DP IN it is data-only. Some boards' rear Type-C runs 10 Gbps on Ryzen 7000 but 40 Gbps on Ryzen 8000 — check the official spec.

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01 PCIE ADD-IN CARDS (BOARDS WITHOUT NATIVE PORTS)

For boards without a native rear USB4 / Thunderbolt port, a certified PCIe add-in card is the recommended upgrade path. Requirements:

- One free PCIe 4.0 x4 slot wired directly to the CPU (avoid chipset-shared lanes)
- Certified cards: ASUS USB4 PCIe Gen4 Card, MSI USB4 PD100W, GIGABYTE GC-USB4, or ASMedia ASM4242-based cards
- For DP Alt Mode: the card must provide DP IN, fed from the discrete graphics output
- For 240 W EPR: the card's upstream port must support high-power PD (many older TB4 cards are limited to 100 W)
- Suitable hosts: Z790 / Z690 / X670E / B760 / B650E boards with direct CPU PCIe 4.0 x4, listed in the vendor's compatibility list

02 NOT FULLY SUPPORTED

- USB 3.2 Gen2×2 (20 Gbps)-only hosts: the hub works, but speed caps at 20 Gbps with no DP Alt Mode, no PCIe tunneling and no 240 W EPR
- Budget H610 / B660 / A620 / B650 boards: virtually no TB4 / USB4
- Legacy Z490 / X570 platforms: no native USB4; third-party TB3 cards show poor PCIe tunneling reliability

03 QUICK SELECTION CHECKLIST

- Full speed (40 Gbps + DP Alt + PCIe + 240 W): native USB4 / TB4 port with DP IN, or a certified USB4 add-in card with DP IN
- Data only: any USB4 / TB4 port without DP IN, or any 20 Gbps Gen2×2 port
- Before buying: check the motherboard I/O diagram for "Thunderbolt 4 / USB4" marking and the official spec table for the actual port speed
- Laptop users: only Thunderbolt 3 / 4 / USB4 laptop ports support full functionality; standard USB-C ports are limited to USB 3.x data rates