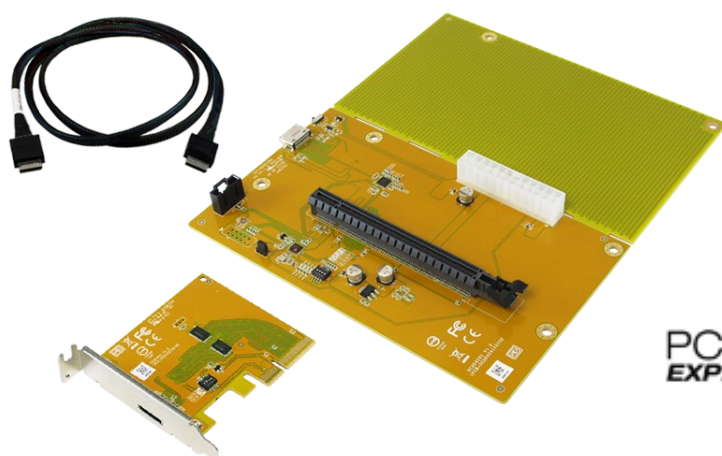# OCUEKIT1

OCUE4221L + OCUD4241 OCuLink Expansion Kit (with low-profile bracket)

Introduction

The OCUE4221L is a standard PCIe x4 HH card with low profile bracket and the OCUE4221 is a standard PCIe x4 HH card with full height bracket that support PCIe Gen4 x4 and connect to an SFF-8612 OCuLink port, enabling external PCIe expansion. Paired with the OCUD4241, a PCIe device board, this kit allows users to extend the PCIe bus outside of the system—supporting external graphics card or SAS/SATA storage RAID card—without the need to upgrade their existing PC or workstation.
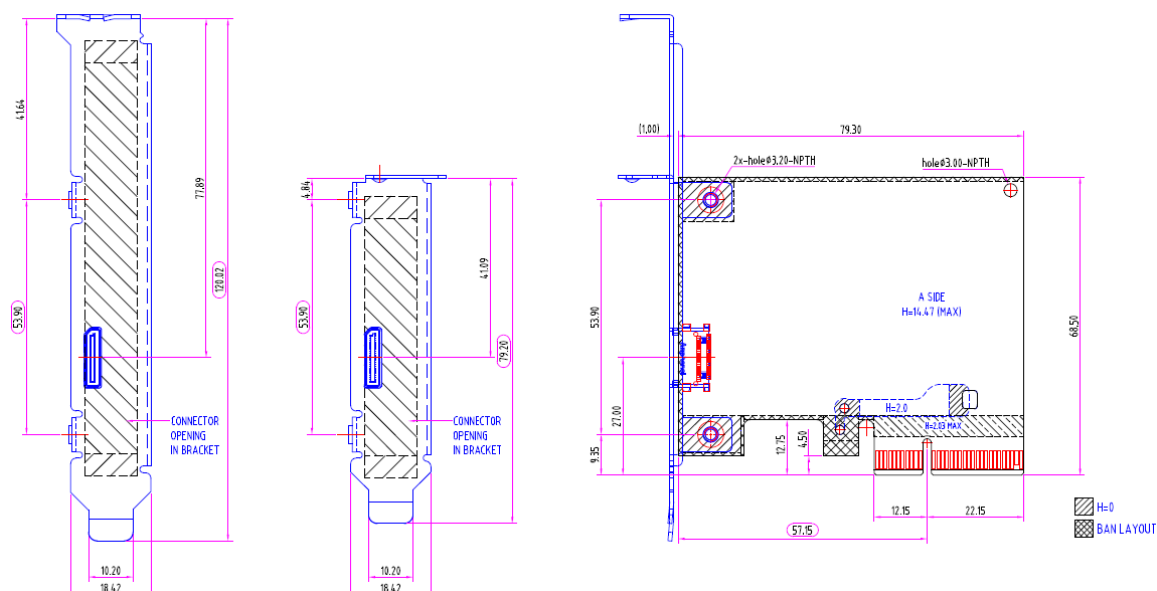
Key Applications & Benefits

- **External GPU Support (eGPU)**
  - ✓ Connect high-performance graphics cards for demanding 3D applications, video editing, or immersive gaming.
  - ✓ Ideal for Mini PC, small form factor PCs, or systems that don't support internal GPU upgrades.
- **External SAS/SATA Storage Expansion**
  - ✓ Easily connect SAS or SATA RAID/HBA cards to add multiple hard drives or SSDs via external enclosures.
  - ✓ Perfect for video editing, large-scale backups, media archiving, or data center applications.
- **Cost-Effective Performance Boost**
  - ✓ Avoid the cost of a full system upgrade—simply add GPU or storage expansion externally.
  - ✓ Flexible and modular approach to upgrading: expand only what you need, when you need it.
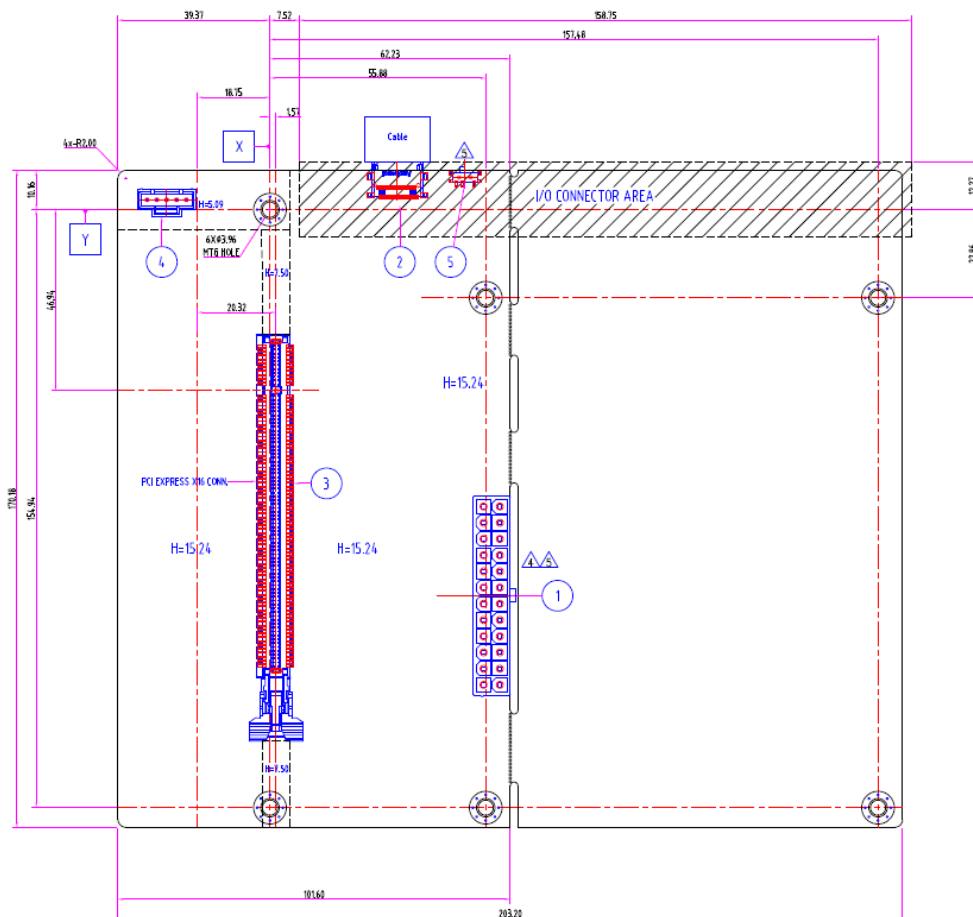
Specifications

■ **OCUE4221L /** OCUE4221

Bus	PCIe Gen4x4
Interface	SFF 8612 4i 42pin
Controller	PHISON PS7101
Redriver settings	By BIOS or MCU(OCUD4241)
Form Factor	PCIe low profile PCB
ESD Protection	±8KV Air / ±4KV Contact
Green Product	RoHS, WEEE
Regulatory Approvals	CE / FCC / VCCI / BSMI
Operation Temperature	0 to 50°C (32 to 122°F)
Operation Humidity	< 85% non-condensing
Storage Temperature	-20 to 85°C (-4 to 185°F)
PCB Dimensions	79.3 x 68.5 mm
Bracket	**OCUE4221L Low Profile 80 mm** / OCUE4221 Standard 121 mm

■ OCUD4241

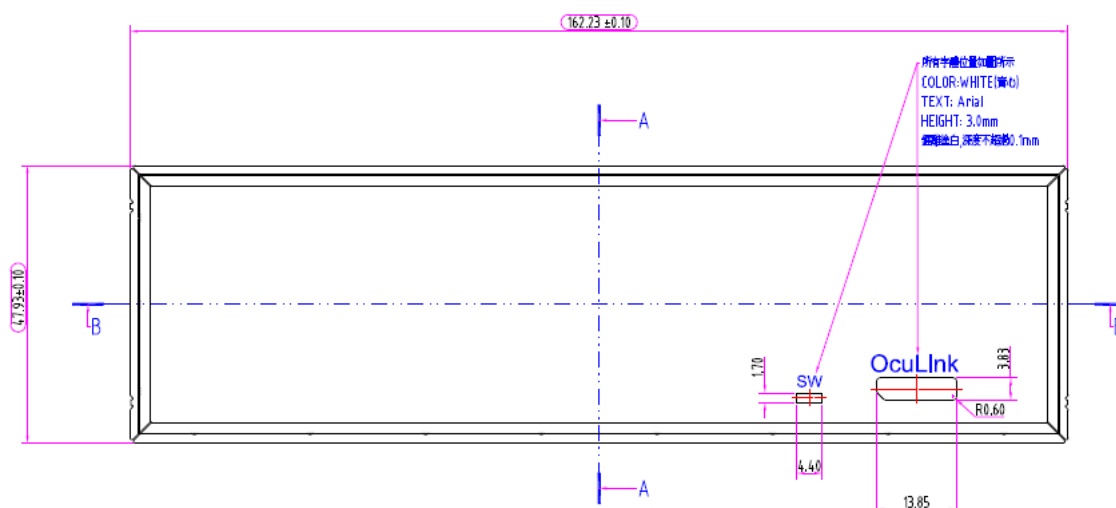| Bus	PCIe Gen4x4
Interface	SFF 8612 4i 42pin
PCIe Slot	PCIe x16 (4 lanes)
MCU settings	By I2C set PCIe driving strength
Form Factor	Mini-ITX PC case supported
ESD Protection	±8KV Air / ±4KV Contact
Green Product	RoHS, WEEE
Regulatory Approvals	CE / FCC / VCCI / BSMI
Operation Temperature	0 to 50°C (32 to 122°F)
Operation Humidity	< 85% non-condensing
Storage Temperature	-20 to 85°C (-4 to 185°F)
PCB Dimensions	203.2 x 107.2 mm
I/O Shield	Support standard ATX case

■ Cable

(100cm external cable)

■ I/O Shield (optional)

Ideal For

■ Creative professionals needing both high GPU performance and large-capacity storage.

■ IT & enterprise users looking to extend SAS/SATA RAID or JBOD systems externally.

■ Gamers and power users wanting better performance on compact or older systems.

■ Mini PC or laptop users requiring PCIe expansion without internal space for upgrades

Package

■ OCUE4221L, OCuLink PCIe Gen4x4 to SFF-8612 (1pcs)

■ OCUD4241, OCuLink Device board SFF-8612 Gen4x4 to PCIe x16 (1pcs)

■ SFF 8611 male to male 100cm external cable (1pcs)

■ Quick Installation Guide

■ I/O Shield (Optional)