

1 Introduction

This CEM Add-in-Card (AIC) is designed for in-system evaluation of the M88RT61632 Retimer chip. It supports PCIe® 6.x and CXL® 3.x specifications, and is equipped with a PCIe 6.x CEM x16 gold-finger edge connector to plug into a PCIe 6.x host, and a PCIe 6.x CEM x16 straddle mount connector to install a PCIe CEM-compliant endpoint AIC. Upon the system power-up and PERST# de-assertion, the host (e.g., CPU) and endpoint device will automatically establish the link via the M88RT61632.

The M88RT61632 is a 16-lane PCIe 6.x/CXL 3.x Retimer and suitable for a wide range of applications, including AI accelerators, servers and storage systems, providing stable and reliable PCIe/CXL link enhancement capabilities.

Refer to *M88RT61632 Product Brief* on Montage website, or contact Montage representatives to request *M88RT61632 Data Sheet* for more details.

2 Specification

Feature	Specification
Card Model	M88RT61632STRDEVB
Card Physical Dimension	202.8mm x 68.9mm
Connectors	PCIe 6.x CEM x16 edge finger, PCIe 6.x CEM x16 straddle mount
LED Indicators	PCIe fundamental reset; Retimer FW load done; Power good
Lane Configuration	Flexible link bifurcation from 1 x16, 2 x8, 4 x4, and up to 8 x2 lanes per link
Clock Modes	Clock mode (CC / SRNS / SRIS) and SSC magnitude selection via DIP switch
Debugging Interface	3.3V SMBus Header (Retimer), USB-C interface for chip debugging

3 Applications

This M88RT61632 CEM AIC can extend the PCIe signal reach to enable rapid system deployment, making it easy to implement GPUs, NICs, switches and other modules in a system with a standard CEM slot.

Figure 1. M88RT61632 CEM AIC (Top View)

