Introducing the Industry 1st 8 &4 Port Dedicated 20Gb/s USB 3.2 HBA Family: HighPoint's RocketU 1488C and RocketU 1444C

HighPoint 20G USB HBA solutions represent a breakthrough for data storage and connectivity. Powered by HighPoint's Advanced PCIe Gen3 Switch Architecture, and capable of hosting up to 8 USB devices at speeds up to 20Gb/s, RocketU 1400 series USB 3.2 HBAs are designed for industrial workflows that require a robust USB-based connectivity solution capable of accommodating a wide range of high-speed data acquisition applications, such as a 3D Imaging or motion capture platform, HD security systems, ADAS sensor suites, high-resolution VR systems, IOT devices and spectrum analyzers.

High-Performance PCIe Switching Architecture

RocketU 1400 series HBAs leverage Broadcom's x48-Lane PLX8700 PCIe Gen3 IC and dedicated ASmedia USB controllers to ensure each USB 3.2 port provides uncompromised 20Gb/s connectivity. x4 Lanes of Gen3 bandwidth is allocated to each downstream port's ASM3242 USB controller, while full x16 lanes are dedicated to the upstream port to the host CPU.
This innovative hardware architecture delivers guaranteed 20Gb/s host-to-device connectivity for industry standard USB 3.2 compliant drives and peripherals, and ensures these devices can continuously operate at maximum throughput without taxing system resources or interfering with neighboring USB connections. In addition, the dedicated ASmedia USB 3.2 controllers enable each port to deliver up to 7.5W of power for device operation or charging purposes.

RocketU 1488C: Eight-Port Powerhouse

The RocketU 1488C is the industry's fastest USB PCIe add-in-card. Armed with eight independent USB 3.2 Type-C ports and proven PCIe Switching Architecture, the compact half-length PCIe HBA is capable of saturating x16 lanes of PCIe 3.0 host bandwidth, and can be installed into nearly any industry-standard workstation or server with PCIe 3.0/4.0/5.0 connectivity. Each USB port delivers a dedicated 20Gb/s of transfer bandwidth and can operate either independently or concurrently.

RocketU 1444C: Compact, Four-Port High-Performance USB Solution

For applications that require fewer device ports or a more compact form factor, without sacrificing 20G transfer capability, HighPoint's RocketU 1144C is the ideal solution. Equipped with four USB 3.2 20G Type-C ports, RocketU 1444C shares the RocketU 1488C's game changing PCIe Switching and dedicated per-port USB controller architecture. The HBA allocates x4 lane of PCIe Gen3 bandwidth to each connection to ensure hosted devices perform optimally with minimal latency for mission-critical applications.

Use Cases and Applications

HighPoint's RocketU 1488C and 1444C USB 3.2 20G HBAs are tailored to meet the demands of high-performance computing environments where bandwidth and real-time data processing are critical.
The dedicated per-port 20G USB connectivity is ideal for industrial, scientific and media applications that require high-performance, high-port count USB connectivity. The compact PCIe form factor can be easily integrated into industry standard x86 hardware platforms, and is natively supported by all modern operating systems.

- **High-Resolution Image and Video Acquisition**: The performance, ultra-low latency and 4-8 independent device ports are ideal for machine vision systems, microscopy, and other high-resolution imaging applications that require must rapidly capture and process data from multiple high-definition cameras or sensors.

- **Real-Time Data Acquisition and Control**: The compact form factor, uncompromised 20G bandwidth and high port count benefit industrial workloads that depend on automation and robotics, where seamless communication and real-time data capture are vital.

- **High-Speed Data Storage and Transfer**: Perfect for fast backup or data migration solutions, enabling swift, large-scale data transfers across multiple drives or external storage devices.

- **Edge Computing**: The compact form factor and uncompromised 20G per-port performance is ideally suited for edge environments designed to host applications that must rapidly process incoming data or I/O requests such as IoT data aggregation and analysis.

- **Medical Imaging and Analysis**: The RocketU 1400 series uncompromised transfer bandwidth is essential for handling large files and high-throughput data from diagnostic equipment, ensuring smooth transition of critical assets for imaging and analytical procedures.

- **Automotive and Aerospace**: High-performance multi-port USB connectivity solutions are ideal for data-intensive simulation and testing applications that require real-time feedback for immediate analysis.

- **Scientific Research**: The massive transfer bandwidth, low-latency and 4 to 8 independent device ports are ideal for laboratory or field-based workflows that process data ingested by multiple high-speed capture devices.

HighPoint's RocketU 1488C and 1444C deliver class-leading performance and connectivity, enabling the seamless transition of data across multiple device to enhance productivity and efficiency in demanding workflows and computing environments. Armed with industry proven PCIe Switching technology and dedicated per-port USB 3.2 controllers, RocketU 1400 series HBAs provide up to eight independent USB Type-C device ports with a guaranteed 20Gb/s of bandwidth on tap.

HighPoint 20Gb/s USB 3.2 Product Line

The RocketU 1400 Series HBAs are now available worldwide direct from our E-Store and our approved Global Resale and Distribution partners.

RocketU 1444C (RU1444C) – 4x USB 20G Type-C Ports: MSRP $199.00 USD
RocketU 1488C (RU1488C) – 8x USB 20G Type-C Ports: MSRP USD $299.00