RADX TECHNOLOGIES, INC. | PRELIMINARY DATASHEET

# Catalyst PXIe-GbE

## COTS Single-Slot PXIe/CPCIe High-Performance Ethernet NIC Modules

4×10 GbE / 2×25 GbE / 2×100 GbE Configurations | From $3,999 H126 MSRP | BAA / TAA Compliant




The **RADX Catalyst PXIe-GbE** family are COTS, single-slot PXIe/CPCIe HPC Ethernet NIC modules available in 4×10 GbE, 2×25 GbE, and 2×100 GbE configurations. Based on the RADX patent-pending **Catalyst-X™** carrier card design with PCIe Gen 4 ×8 support, Catalyst-GbE integrates NVIDIA® Mellanox® ConnectX-6 and Intel® XL710-BM1 PCIe NICs with support for RDMA (iWARP, RoCEv2), GPUDirect, IEEE-1588v2 Precision Time Protocol (PTP), and IPsec offload — delivering enterprise data center and HPC networking performance directly inside any PXIe chassis.

### KEY FEATURES

- 3 configurations: 4×10, 2×25, 2×100 GbE
- PCIe Gen 4 ×8 host interface
- GPUDirect support (CX6 models)
- IPsec offload (CX6 models)
- Single-slot PXIe / CPCIe form factor
- Windows & Linux compatible
- Designed & assembled in the USA
- Long-life-cycle product
- RADX patent-pending Catalyst-X™ carrier card
- RDMA: iWARP & RoCEv2 (CX6 models)
- IEEE-1588v2 Precision Time Protocol (PTP)
- Intel® XL710-BM1 & NVIDIA® Mellanox® CX6
- Standard vendor drivers — no custom RADX drivers
- BAA & TAA compliant
- GSA available via GSAMart by TestMart
- ~30-day typical delivery ARO

### ELECTRICAL & MECHANICAL SPECIFICATIONS

| | |
|---|---|
| **Form Factor** | Single-slot PXIe / CPCIe |
| **Host Interface** | PCIe Gen 4 ×8 |
| **Configurations** | 4×10 GbE, 2×25 GbE, 2×100 GbE |
| **Controllers** | Intel® XL710-BM1; NVIDIA® Mellanox® MCX631102AN-ADAT (25G); MCX623106AN-CDAT (100G) |
| **Port Types** | SFP+ (10G), SFP28 (25G), QSFP56 (100G) |
| **RDMA** | iWARP, RoCEv2 (CX6 models) |
| **GPUDirect** | Yes (CX6 models) |
| **Time Sync** | IEEE-1588v2 PTP (CX6 models) |
| **Offload** | IPsec (CX6 models) |
| **Power / Slot** | ~10 W (4×10G), ~13 W (2×25G), ~27 W (2×100G) |
| **OS Support** | Windows 10/11, Linux (standard vendor drivers) |
| **Driver Requirement** | Standard Intel / NVIDIA Mellanox drivers |

### COMPLIANCE & CERTIFICATIONS

| | |
|---|---|
| **Buy American Act** | BAA Compliant |
| **Trade Agreements Act** | TAA Compliant |
| **Country of Assembly** | United States of America |
| **GSA Availability** | Yes — via GSAMart by TestMart |
| **Delivery** | ~30–45 days ARO (small volumes) |

### APPLICATIONS

- High-speed data streaming & network traffic generation/analysis
- Electronic Warfare (EW) & Signals Intelligence (SIGINT)
- Distributed test systems requiring high-throughput inter-chassis communication
- Real-time data acquisition & recording over Ethernet
- Communications test & protocol analysis
- Automated Test Equipment (ATE) with networked DUTs
- HPC compute clusters within PXIe chassis
- GPUDirect data transfers between NIC and GPU

### COMPATIBLE CHASSIS

- NI PXIe chassis (all standard slots)
- Keysight PXIe chassis
- Pickering PXIe chassis
- All standard PXIe / CPCIe chassis

### CATALYST-X™ CARRIER CARD

All Catalyst PXIe-GbE modules are built on the RADX patent-pending **Catalyst-X™** carrier card — a purpose-designed PXIe/CPCIe single-slot carrier that integrates standard PCIe NIC cards into the PXIe form factor. PCIe Gen 4 ×8 host interface ensures full bandwidth utilization for all three NIC configurations. Standard vendor drivers are used throughout; no custom RADX drivers are required.

### ORDERING INFORMATION — PART NUMBERS & H126 MSRP

**RADX Catalyst PXIe-GbE — Part Numbers, Configurations & H126 MSRP**

| Part Number | Integrated PCIe NIC | Ports | Host I/F | W / Slot | H126 MSRP* |
|---|---|---|---|---|---|
| PXIe-GbE-2x25GbE-CX6 | NVIDIA® Mellanox® MCX631102AN-ADAT | 2 × SFP28 (25 GbE) | PCIe Gen 4 ×8 | ~13 W | $3,999 |
| PXIe-GbE-4x10GbE-XL710 | Intel® XL710-BM1 | 4 × SFP+ (10 GbE) | PCIe Gen 4 ×8 | ~10 W | $4,999 |
| PXIe-GbE-2x100GbE-CX6 | NVIDIA® Mellanox® MCX623106AN-CDAT | 2 × QSFP56 (100 GbE) | PCIe Gen 4 ×8 | ~27 W | $5,999 |

*FOB San Jose. Excludes US import tariffs not in effect prior to RADX PO acceptance. Contact RADX for current availability and lead times.

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