StoneO Optical Interconnect & AI Switch Fabric Datasheet

200G / 400G / 800G (0.8T) / 1.6T Optical Transceivers, NVIDIA SuperNICs & Quantum/Spectrum Switches — Hong Kong Bonded Hub Live Allocation

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1. Hong Kong Bonded Hub Immediate Dispatch & Interoperability Guarantee

StoneO supplies high-speed optical transceivers, active/passive interconnect cables, NVIDIA ConnectX SmartNICs/SuperNICs, and InfiniBand/RoCEv2 switch fabrics engineered for hyperscale AI training and inference clusters. With **6,844+ ready-to-ship units stocked at our Hong Kong Bonded Hub** and direct fast-track production lines across Thailand, Malaysia (Penang), and Indonesia (Batam), StoneO eliminates multi-month OEM lead-time bottlenecks while guaranteeing 100% plug-and-play interoperability.

- **NVIDIA CX7 / CX8 & Switch Matrix Verified:** Every optical transceiver undergoes 100% real-system link, eye-diagram, and thermal burn-in testing against NVIDIA Quantum-2 (QM9700/QM9790), Quantum-X800 (Q3400-RA), Spectrum-4 (SN5600), and ConnectX-7/ConnectX-8 adapters with pre-FEC BER < 1E-15.
- **Mechanical Form-Factor Precision (Finned-Top IHS vs. Flat-Top RHS):** Switch faceplates require **Finned-Top (IHS — Integrated Heat Sink)** OSFP modules to dissipate heat in switch airflow channels, whereas PCIe/OCP server NIC cages require **Flat-Top (RHS — Riding Heat Sink)** OSFP or QSFP112 modules to prevent heatsink collision. StoneO maintains matched inventory for both ends of every link.
- **POC Lab Evaluation & 1% Free RMA Buffer:** Orders of 1–19 pcs support 30-day lab POC validation (convertible to formal commercial invoice). Optical transceiver & cable orders of ≥100 pcs include a complimentary **1% free RMA spare unit buffer** and custom EEPROM coding.

2. Flagship In-Stock Optical Transceivers & High-Speed Cables (200G–1.6T)

The table below highlights StoneO's primary in-stock and fast-track optical transceivers and interconnect cables across 200G QSFP56, 400G QSFP112/QSFP-DD/OSFP, 800G (8×112G & 0.8T 4×224G) OSFP, and 1.6T OSFP224 architectures. All prices are quoted in USD under **FCA Hong Kong Bonded Hub (Incoterms 2020)**.

Part Number & SKU	Technical Specification & QA	HK Stock / SLA	1–19	20–99	100–999	1K+
200G-QSFP56-SR4 SKU: 1002 · 200G Optics	200G QSFP56 SR4 850nm OM4 100m MPO-12 · Quantum Verified	**1,699 pcs** L1: 24–48h	$195	$182	$168	$150
400G-QDD-VR4 SKU: 1008 · 400G Optics	400G QSFP-DD VR4 850nm OM4 50m MPO-12 Ultra-Short Reach	**190 pcs** L1: 24–48h	$250	$230	$210	$190
400G-QSFP112-VR4 SKU: 1009 · 400G Optics	400G QSFP112 VR4 850nm OM4 50m MPO-12 (4×112G) · CX7/CX8	**1,976 pcs** L1: 24–48h	$260	$242	$222	$198

Part Number & SKU	Technical Specification & QA	HK Stock / SLA	1–19	20–99	100–999	1K+
400G-OSFP56-IHS-2*SR4 SKU: 1010 · Finned Top IHS	400G OSFP56 2×200G SR4 850nm 100m Dual MPO-12 · Quantum-2	**34 pcs** L1: 24–48h	$285	$265	$245	$220
400G-QSFP112-SR8 SKU: 1018 · 400G Optics	400G QSFP112 SR8 850nm OM4 100m MPO-16 (4×112G) · CX7/CX8	**1,999 pcs** L1: 24–48h	$285	$265	$245	$220
400G-QSFP112-DR4 SKU: 1024 · 500m SiPh	400G QSFP112 DR4 1310nm 500m MPO-12 SiPh (4×112G) · CX7/CX8	**37 pcs** L1: 24–48h	$320	$298	$272	$245
400G-QDD-FR4 SKU: 1027 · 2km CWDM4	400G QSFP-DD FR4 1310nm CWDM4 2km Duplex LC · CX7/CX8	**160 pcs** L1: 24–48h	$350	$325	$295	$265
800G-OSFP112-IHS-2*VR4 SKU: 1033 · Switch Finned IHS	800G OSFP112 2xVR4 850nm 50m Dual MPO-12 · Q3400-RA Verified	**260 pcs** L1: 24–48h	$740	$695	$645	$585
800G-OSFP112-RHS-2*VR4 SKU: 1034 · NIC Flat Top RHS	800G OSFP112 2xVR4 850nm 50m Dual MPO-12 · CX8 Verified	**1,919 pcs** L1: 24–48h	$740	$695	$645	$585
0.8T-OSFP224-IHS-SR4 SKU: 1039 · 4×224G Finned IHS	800G (0.8T) OSFP224 SR4 850nm 100m MPO-12 · Quantum-X800	**Allocation** L1/L2 Hub	$790	$740	$690	$625
0.8T-OSFP224-RHS-SR4 SKU: 1040 · 4×224G Flat RHS	800G (0.8T) OSFP224 SR4 850nm 100m MPO-12 · Blackwell Ready	**Allocation** L1/L2 Hub	$790	$740	$690	$625
800G-OSFP112-IHS-2*DR4 SKU: 1042 · Switch Finned IHS	800G OSFP112 2xDR4 1310nm 500m Dual MPO-12 SiPh · CX8	**7 pcs** L1: 24–48h	$850	$795	$740	$675
800G-OSFP112-RHS-2*DR4 SKU: 1043 · NIC Flat Top RHS	800G OSFP112 2xDR4 1310nm 500m Dual MPO-12 SiPh · CX8	**9 pcs** L1: 24–48h	$850	$795	$740	$675
1.6T-OSFP224-IHS-2*DR4 SKU: 1065 · 8×224G Finned IHS	1.6T OSFP224 2xDR4 1310nm 500m Dual MPO-12 SiPh · Quantum-3	**3 pcs** L1: 24–48h	$1,890	$1,750	$1,590	$1,450
800G-BRK-10M SKU: 1074 · Breakout AOC	800G OSFP112 to 2×400G QSFP112/QDD Breakout AOC 10m OM4	**Allocation** L2: 3–5 Days	$1,320	$1,230	$1,135	$1,020
800G-DAC-3M SKU: 1075 · Passive Copper	800G OSFP112 Passive Copper Direct Attach Cable (DAC) 3m	**Allocation** L1/L2 Hub	$140	$128	$115	$98

3. NVIDIA ConnectX SuperNICs, BlueField-3 DPUs & AI Switch Fabrics

StoneO holds original factory-sealed NVIDIA network adapters and InfiniBand/Spectrum-X switches in Hong Kong Bonded Hub inventory to support complete end-to-end cluster turn-up alongside our optical transceivers.

Part Number & SKU	Hardware Description & Form Factor	HK Stock / SLA	1–19	20–99	100–999	1K+
MCX653105A-ECAT SKU: 1077 · ConnectX-6 HDR	NVIDIA ConnectX-6 VPI 200Gb/s HDR IB & 200GbE 1-Port QSFP56	**100 pcs** L1: 24–48h	$680	$645	$595	$545
MCX653106A-HDAT SKU: 1078 · ConnectX-6 Dual	NVIDIA ConnectX-6 VPI 200Gb/s HDR IB & 200GbE 2-Port QSFP56	**100 pcs** L1: 24–48h	$790	$750	$695	$640
MCX75310AAS-NEAT SKU: 1079 · ConnectX-7 NDR	NVIDIA ConnectX-7 400Gb/s NDR IB & 400GbE 1-Port OSFP112 PCIe 5.0	**100 pcs** L1: 24–48h	$1,280	$1,210	$1,140	Quote
MCX755106AC-HEAT SKU: 1080 · ConnectX-7 Dual	NVIDIA ConnectX-7 400Gb/s NDR200 / 200GbE 2-Port QSFP112 PCIe 5.0	**100 pcs** L1: 24–48h	$1,190	$1,125	$1,060	Quote
MBF3M516A-EEOT SKU: 1081 · BlueField-3 DPU	NVIDIA BlueField-3 B3220 DPU 400Gb/s 2-Port QSFP112 16-Core Arm	**100 pcs** L2: 3–5 Days	$2,650	$2,520	$2,380	Quote
MCX813106AE-HEA SKU: 1082 · ConnectX-8 PCIe 6	NVIDIA ConnectX-8 SuperNIC 800Gb/s XDR IB & 2×400GbE PCIe 6.0	**100 pcs** L2: 3–5 Days	$2,150	$2,080	$1,980	Quote
900-9X810-0030-ST0 SKU: 1083 · CX8 OCP 3.0	NVIDIA ConnectX-8 Dual-Channel 800Gb/s SuperNIC OCP 3.0 (HGX)	**100 pcs** L2: 3–5 Days	$2,280	$2,190	$2,080	Quote
MCX913100A-HEA SKU: 1084 · ConnectX-9 1.6T	NVIDIA ConnectX-9 Ultra SuperNIC 1.6Tb/s OSFP224 PCIe 6.0/7.0	**100 pcs** L3: 2–3 Wks	$3,850	$3,680	$3,490	Quote
MQM9790-NS2F SKU: 1088 · Quantum-2 64P	NVIDIA Quantum-2 QM9790 400Gb/s NDR IB Switch 64-Port OSFP112	**44 pcs** L1: 24–48h	$25,900	$24,700	$23,500	Quote
920-9N42D-00RI-7C0 SKU: 1090 · Spectrum-4 SN5600	NVIDIA Spectrum-4 SN5600 800GbE Spectrum-X Switch 64-Port (51.2T)	**Allocation** L2: 3–5 Days	$42,500	$40,800	$38,900	Quote
920-9B340-00RX-0S0 SKU: 1092 · Quantum-X800	NVIDIA Quantum-X800 Q3400-RA 800Gb/s XDR Switch 144-Port (115.2T)	**60 pcs** L2: 3–5 Days	$68,500	$65,800	$62,900	Quote

4. Reference AI Cluster Topologies & Optical Pairing Ratios

Use the reference architectures below (or launch the interactive **AI Fabric BOM Calculator** on **https://stoneo.net**) to size exact switch, NIC, and optical transceiver quantities for standard 8-GPU rail-optimized server pods:

- **16-Node Blackwell HGX B200 Pod (128 GPUs / 800G XDR Single-Tier Rail):** Requires **1x Quantum-X800 Q3400-RA** switch (144-port 800G), **128x ConnectX-8 SuperNICs** (`MCX813106AE-HEA`), **16x BlueField-3 DPUs** (`MBF3M516A-EE0T`), **131x Finned-Top Switch Optics** (`800G-OSFP112-IHS-2*VR4`, incl. 2% spares), and **131x Flat-Top NIC Optics** (`800G-OSFP112-RHS-2*VR4`, 1,919 pcs in HK stock).
- **32-Node HGX H100 / H200 Cluster (256 GPUs / 400G NDR 2-Tier Fat-Tree):** Requires **12x Quantum-2 QM9790/QM9700** switches (8 Leaf + 4 Spine, 44 pcs QM9790 in HK stock), **256x ConnectX-7 NICs** (`MCX75310AAS-NEAT`), **131x Twin-Port 800G Finned Switch Downlink Optics** (`800G-OSFP112-IHS-2*VR4` driving 2×400G breakouts), **262× 400G NIC Optics** (`400G-QSFP112-VR4`, 1,976 pcs in HK stock), and **262x Inter-Switch Spine Optics** (`800G-OSFP112-IHS-2*DR4`).

5. Delivery Lead Time Tiers, Warranty & Commercial SLA Policy

SLA Dimension	Standard / Tier Classification	Fulfillment Scope & Technical Guarantee
L1: Immediate (24–48h)	**Hong Kong Bonded Hub Stock**	In-stock at HK Bonded Hub; air-waybill (AWB) generated within 24–48 hours upon T/T payment or PO confirmation.
L2: Express (3–5 Days)	**ASEAN Regional Hub Transfer**	Finished goods stocked at regional ASEAN hubs (Thailand / Penang MY / Batam ID); dispatched within 3–5 business days.
L3: Factory Direct (2–3 Wks)	**Fast-Track Production**	Semi-finished optical engine ready at TH/MY/ID lines; final assembly, custom EEPROM coding & CX8 burn-in within 14–21 days.
Warranty & RMA Buffer	**1 to 3-Year Advanced Replacement**	200G–400G Optics: **3-Year Warranty**; 800G–1.6T Optics: **2-Year Warranty**; Switches & NICs: **1-Year Warranty**. Optical/cable orders ≥100 pcs include **+1% free RMA spare units**.
Trade & Settlement Terms	**FCA Hong Kong (Incoterms 2020)**	100% T/T in USD, SGD, or HKD via Singapore Offshore Entity (OCBC Bank). Prices exclude destination taxes, duties & freight.

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