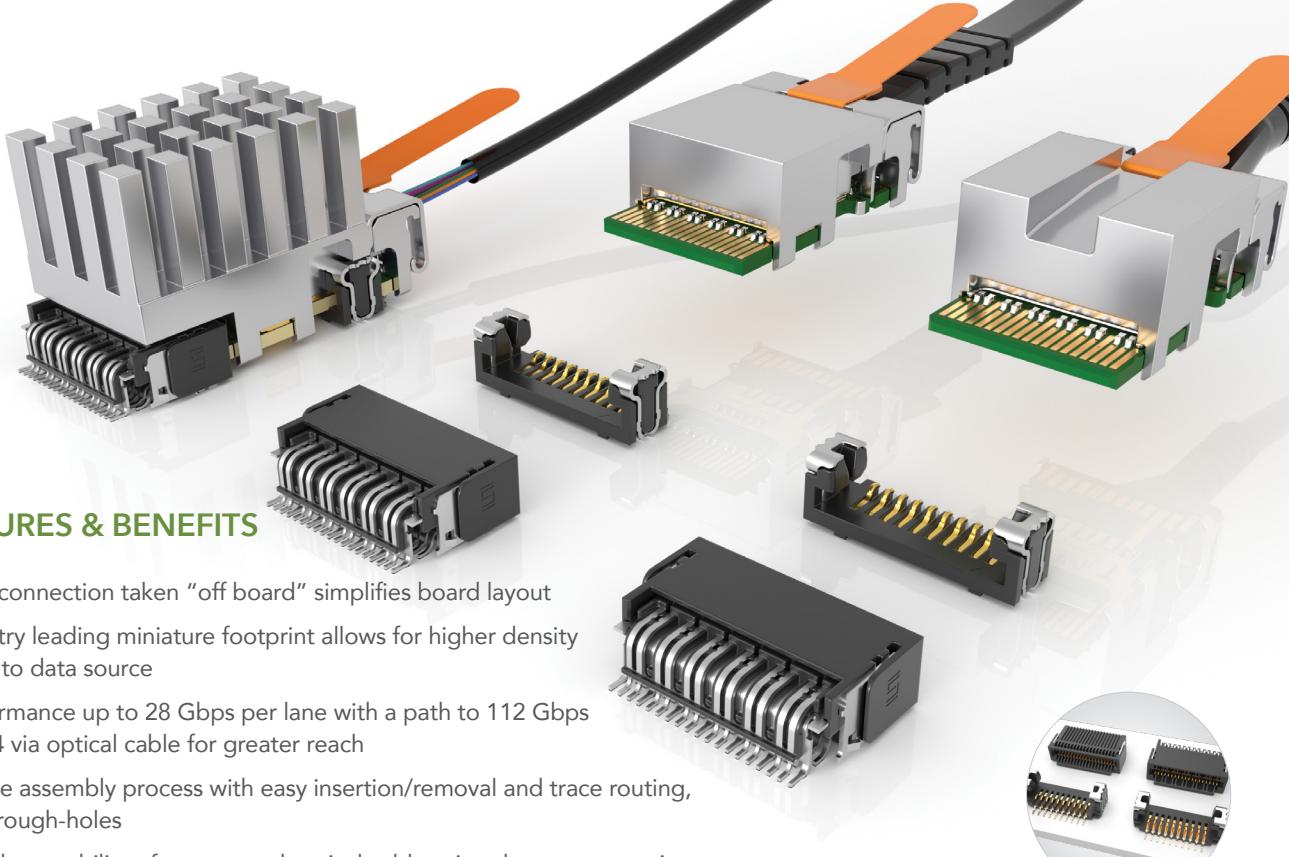


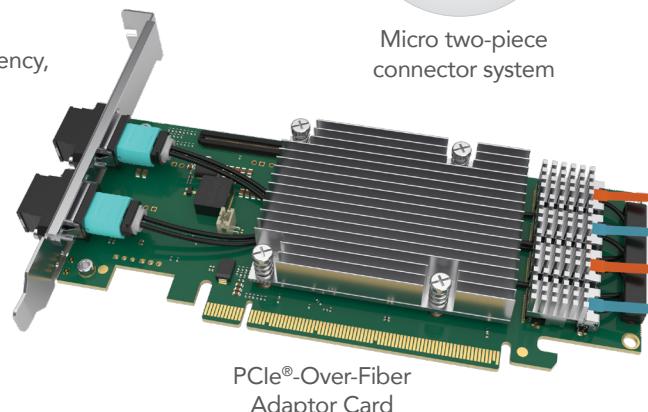
FIREFLY™ MICRO FLYOVER SYSTEM™



FEATURES & BENEFITS

- Data connection taken "off board" simplifies board layout
- Industry leading miniature footprint allows for higher density close to data source
- Performance up to 28 Gbps per lane with a path to 112 Gbps PAM4 via optical cable for greater reach
- Simple assembly process with easy insertion/removal and trace routing, no through-holes
- Interchangeability of copper and optical cable using the same two-piece surface mount connector
- PCIe®-Over-Fiber (PCUO/PTUO) supports PCIe® protocol for low latency, power savings and guaranteed transmission; 3.0 and 4.0 solutions
- -40 °C to +85 °C extended temperature system (ETUO) for industrial applications
- Extreme Environment FireFly™ sealed and parylene-coated for rugged military and aerospace applications (ETMO)
- Multiple end options available: MTP®, MXC®, MT, VITA™ 66.1/66.4 and other common interfaces
- Variety of integral heat sinks for conduction and convection cooling

MTP® and MXC® are registered trademarks of US Conec Ltd.
PCI-SIG®, PCI Express® and PCIE® design marks are registered trademarks and/or service marks of PCI-SIG.
VITA/VNX/VNX+/FMC/FMC+/XMC/XMC+ are all respective trademarks of VITA



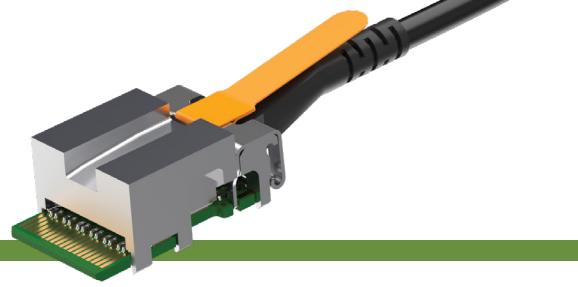
PCIe®-Over-Fiber
Adaptor Card

FIREFLY™ COPPER

- Performance to 56 Gbps
- 8 or 12 differential pairs
- 100 Ω, 34 or 36 AWG Eye Speed® twinax cable
- Variety of end 2 termination options
- Low profile housing for space savings
- Low-cost solution for seamless integration of new and existing designs

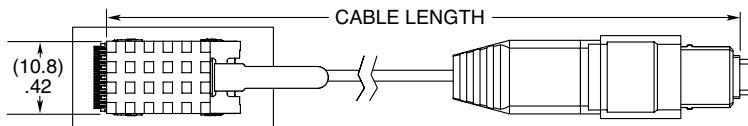


For complete copper FireFly™ or PCIE® over FireFly™ series specifications www.samtec.com?ECUE and www.samtec.com?PCUE



ECUO	WIDTH	DATA RATE	CABLE LENGTH	0	HEAT SINK	1	FIBER TYPE	END 2 OPTIONS
-B04 = 4 Tx + 4 Rx	-14 = 14 Gbps per lane	—"XXX" = Overall Length in Centimeters	0	-1 = Flat	-5 = Jacketed ribbon with boot	-6 = Jacketed ribbon	-7 = Black loose tube with boot	12 Fibers (Leave blank for -U12 or -B04 width) -Y12 requires -2X end option
-T12 = 12 Tx	-16 = 16.1 Gbps per lane (N/A -B04)			-2 = Pin-fin (-14 & -16 only)	-3 = Flat with groove	-8 = Black loose tube	24 Fibers	
-R12 = 12 Rx	-25 = 25.7 Gbps per lane (-B04 only)			-4 = PCIe® Pin-fin (-14 & -16 only)	-5 = 1.75 cm tall Pin-fin			
-Y12 = 12 Tx + 12 Rx	-28 = 28.1 Gbps per lane							
-U12 = 12 Channel AOC (Unidirectional)								

ECUO
Mates with:
UEC5, UCC8,
OPA



FEATURES

- Supports data center and HPC protocols, including: Ethernet, InfiniBand™, Fibre Channel
- Customizable optical connectors
- Integrated coupling capacitors
- Standard temperature range 0 °C to +70 °C
- Evaluation & Development boards available

TOOLING

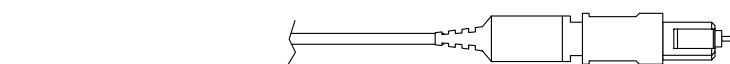
Insertion Tool: CAT-IN-ECUO-02

Notes:
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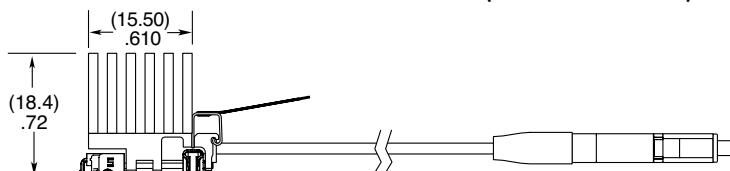
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All FireFly™ designs, specifications and components are preliminary and subject to change without notice.

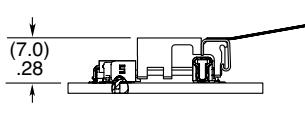
Some lengths, styles and options are non-standard, non-returnable.



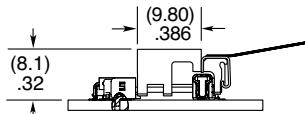
-01 (MTP® MALE SHOWN)



-07 (MXC® INTERNAL PLUG SHOWN)



-1 FLAT HEAT SINK



-3 FLAT WITH GROOVE HEAT SINK (MULTI-ROW CONFIGURATION)

CLASS 1 LASER PRODUCT
per IEC 60825-1 Ed. 3 (2014)

Applies to all end 2 options except MXC®

*CLASS 3R LASER PRODUCT

Laser Radiation. Avoid Direct Eye Exposure.



Applies to MXC® end option only.