



# HIGH-DENSITY COPPER FLYOVER<sup>®</sup> SYSTEM



## FEATURES & BENEFITS

- Pin compatible with optical FireFly™ using the same connector system
- Data connection is taken "off board" for easier routing
- Low-cost solution for seamless integration of new and existing designs
- Low-profile housing for space savings
- x4 bidirectional or x12 unidirectional
- Variety of end 2 termination options

<b>14</b> G b p s	x4 Bidirectional ECUE x12 Unidirectional ECUE
<b>PAM 4</b>	
<b>56</b> G b p s	x4 Bidirectional ECUE-2



### Standard Copper (ECUE)

- 14 Gbps
- 100 Ω, 34 AWG or 36 AWG Eye Speed<sup>®</sup> twinax cable



### Optimized Copper (ECUE-2)

- 28 Gbps card design
- 100 Ω, 34 AWG Eye Speed<sup>®</sup> ultra low skew twinax cable
- Optimized for use with connector UEC5-2



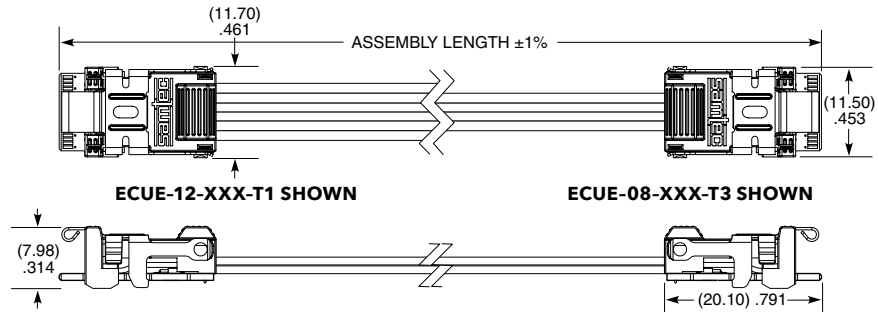
### PCI Express<sup>®</sup>-Over-FireFly<sup>™</sup> Copper (PCUE)

- PCIe<sup>®</sup> 4.0
- 100 Ω, 34 AWG Eye Speed<sup>®</sup> ultra low skew twinax cable
- Optimized for use with connector UEC5-2

**LOW-PROFILE MICRO FLYOVER® CABLE**

SERIES	NO OF PAIRS	ASSEMBLY LENGTH	CABLE TYPE	END 2 OPTION	WIRING OPTION	DATA RATE	OPTION
<b>ECUE</b> = Rugged FireFly™ Cable Assembly	<b>-08</b> = Eight Pair (-T2 & -T3 cable only)  <b>-12</b> = Twelve Pair (-T1 cable only)	<b>-"XXX"</b> = Assembly Length in Centimeters (007 cm to 999 cm)	<b>-T1</b> = 36 AWG twinax (-12 pairs only)  <b>-T2</b> = 34 AWG twinax (-08 pairs only)  <b>-T3</b> = 34 AWG ultra low skew twinax (-08 pairs only)	<b>-FF</b> = FireFly™ (Mates with UEC5/UCC8)	<b>-01</b> = Pin A1 to Pin A19  <b>-02</b> = Pin A1 to Pin B1  <b>-B4</b> = Pin A1 to Pin B19 (-08 pair only)	<b>-1</b> = 14 Gbps (-T1 or -T2 only)  <b>-2</b> = 28 Gbps (-T3 only)	Leave blank for standard FireFly™  <b>-D1</b> = Decoupling Capacitors (only available with -02 & -B4 wire options)

**ECUE**  
Board Mates:  
UEC5, UCC8

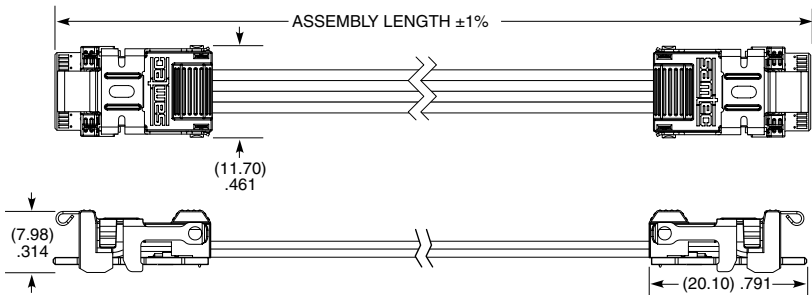


**Notes:**  
All FireFly™ designs, specifications and components are preliminary and subject to change without notice.  
  
Cable lengths longer than 150 cm (59.06") are not supported with S.I. test data.

View complete specifications at: [samtec.com?ECUE](http://samtec.com?ECUE)

SERIES	SPEED	NO. OF CHANNELS	CABLE LENGTH	END 2
<b>PCUE</b> = PCIe®-over-FireFly™ Copper Flyover®	<b>-G4</b> = Gen 4 Speed	<b>-04</b> = 8 pairs	<b>-"XXX"</b> = Overall Length in Centimeters (010 cm to 999 cm)	<b>-FF</b> = FireFly™ (Mates with UEC5/UCC8)

**PCUE**  
Board Mates:  
UEC5, UCC8



**Notes:**  
Supports PCIe® sideband signals  
  
Two additional low speed channels compatible with PCUO or custom usage  
  
Decoupling capacitors in-line with signals on PCB.  
  
PCI-SIG®, PCI Express® and the PCIe® design marks are registered trademarks and/or service marks of PCI-SIG.

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

View complete specifications at: [samtec.com?PCUE](http://samtec.com?PCUE)