



# HIGH-PERFORMANCE & EXTREME DENSITY CABLE SYSTEM

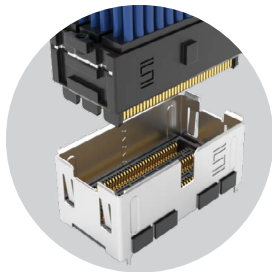
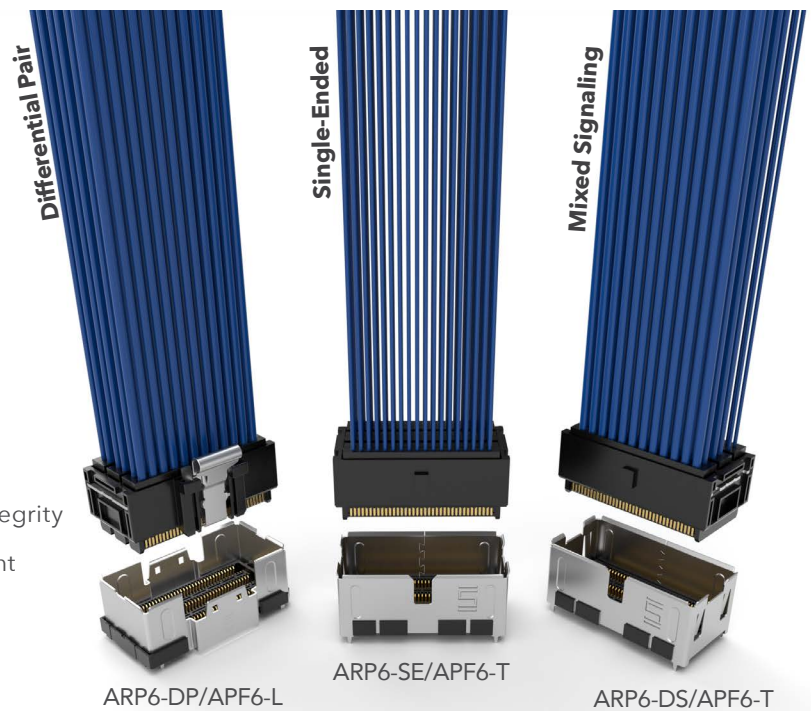
## ACCELERATE® HP CABLE ASSEMBLIES

- Industry's highest density 112 Gbps PAM4 cable-to-board system
- Data rate compatible with PCIe® 6.0/CXL® 3.1 and 100 GbE
- IC package adjacent or on-package applications
- Staggered row-to-row spacing (2.2 mm x 2.4 mm) for adequate routing lanes and optimized traces
- 4 or 6 rows (8 rows in development)
- Differential pair configuration: 8 or 12 pairs per row
- Single-ended configuration: 12 or 18 coax per row; dedicated G-S-G-S-G layout for reduced crosstalk
- 34 AWG Eye Speed® Thinax™ 92 Ω ultra performance twinax with a 40% smaller cross-sectional area vs. traditional Eye Speed® twinax for increased density
- 34 AWG Eye Speed® ThinSE™ 50 Ω micro coax with a small .024" diameter
- Direct attach contacts to the cable improves signal integrity
- Right-angle shielded mating connector in development
- Gen 2 on-package 112 Gbps PAM4 system with up to 144 pairs in the same Gen 1 footprint (ART6/ATF6)

# ACCELERATE® HP

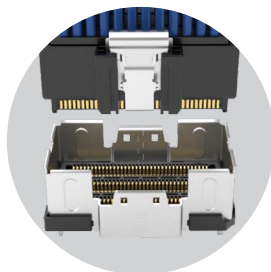
PAM4

112  
Gbps



APF6-T

Locking for maximum density  
(removal tool required)

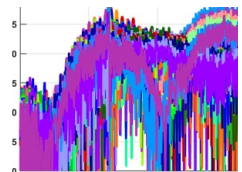


APF6-L

Squeeze latching for  
quick disconnect

### HIGH-PERFORMANCE TEST DATA

SI measurements are available on page 2. For more information, contact [SIG@samtec.com](mailto:SIG@samtec.com)



## SYSTEM

- ARP6 - 0.635 mm Pitch Cable Assembly
- APF6-L - 0.635 mm Pitch Socket, Latching
- APF6-T - 0.635 mm Pitch Socket, Locking (Tool required for removal)

For more about Samtec's AcceleRate® Cable, please visit [samtec.com/accelerate](http://samtec.com/accelerate) or contact [hdr@samtec.com](mailto:hdr@samtec.com)

# SI MEASUREMENTS

## ACCELERATE® HP CABLE SYSTEM DIFFERENTIAL PAIR

**SERIES:** ARP6-DP (Cable Assembly), APF6-L (Board Mate)

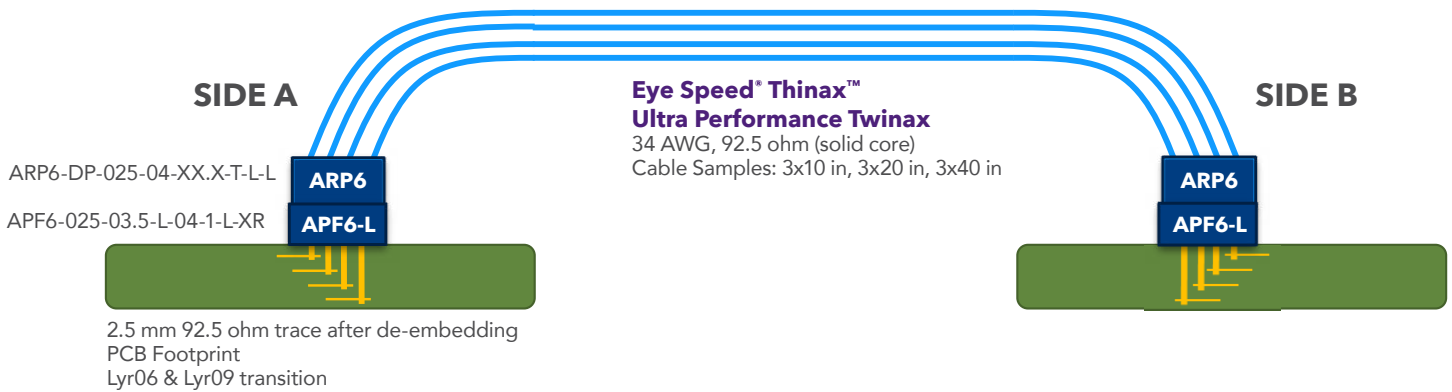
**MEASUREMENTS:** Have been de-embedded

## SETUP FOR DEVICE UNDER TEST

### SPECIFICATIONS

Nine ARP6-DP cable samples tested

APF6-L and PCBs are unchanged on all measurements



## RESULTS

