28 GBPS FIREFLY™
EVALUATION KIT

samtec

As data rates increase, trace length on PCBs decrease. Samtec's Flyover® Technology simplifies PCB design and limits signal degradation in high data rate applications. Samtec's FireFly™ Micro Flyover System™ offers the flexibility of using optical and copper interconnects interchangeably with the same connector system.

The 28 Gbps FireFly™ Evaluation Kit provides system designers, optical and SI engineers an easy-to-use solution for testing the FireFly™ Micro Flyover System™. Rated up to 28 Gbps per lane in x4 and x12 configurations, this kit allows the designer real-time evaluation of an actively running copper or optical FireFly™ system in their lab.

The 28 Gbps FireFly™ Evaluation Kit delivers a high-quality system with robust optical, electrical and mechanical design. Please contact Samtec's technical experts at FireFly@samtec.com for additional information.

FEATURES:

- Updated GUI and application software hosted via Raspberry Pi 3 and MicoSD card
- Accessible via stand-alone executable or connection via laptop/web browser
- Two PCB system with compact form factor
- One FireFly™ two-piece SMT connector systems (UCC8/UEC5-2 series)
- Supports one FireFly™ AOC or Copper Cable Assembly available separately

- Routes high-speed differential pairs (12 total) from UEC5-2 series connector to high-precision RF connectors
- Features optimized SI performance via Samtec Final Inch® BOR PCB trace routing
- Optional industry-standard MTP® connector
- Enable time domain measurements via direct connection to TDR/TDTs
- Enable frequency domain measurements via direct connection to VNAs

APPLICATIONS:

- Evaluation of FireFly™ Micro Flyover System™
- FPGA Emulation Systems
- FPGA Evaluation Kits
- FPGA Development Kits
- Phased Radar Arrays
- Medical Imaging
- Test and Measurement

KIT INCLUDES:

- 28 Gbps FireFly™ Evaluation Kit PCB
- 5V power adapter
- Power supply connector
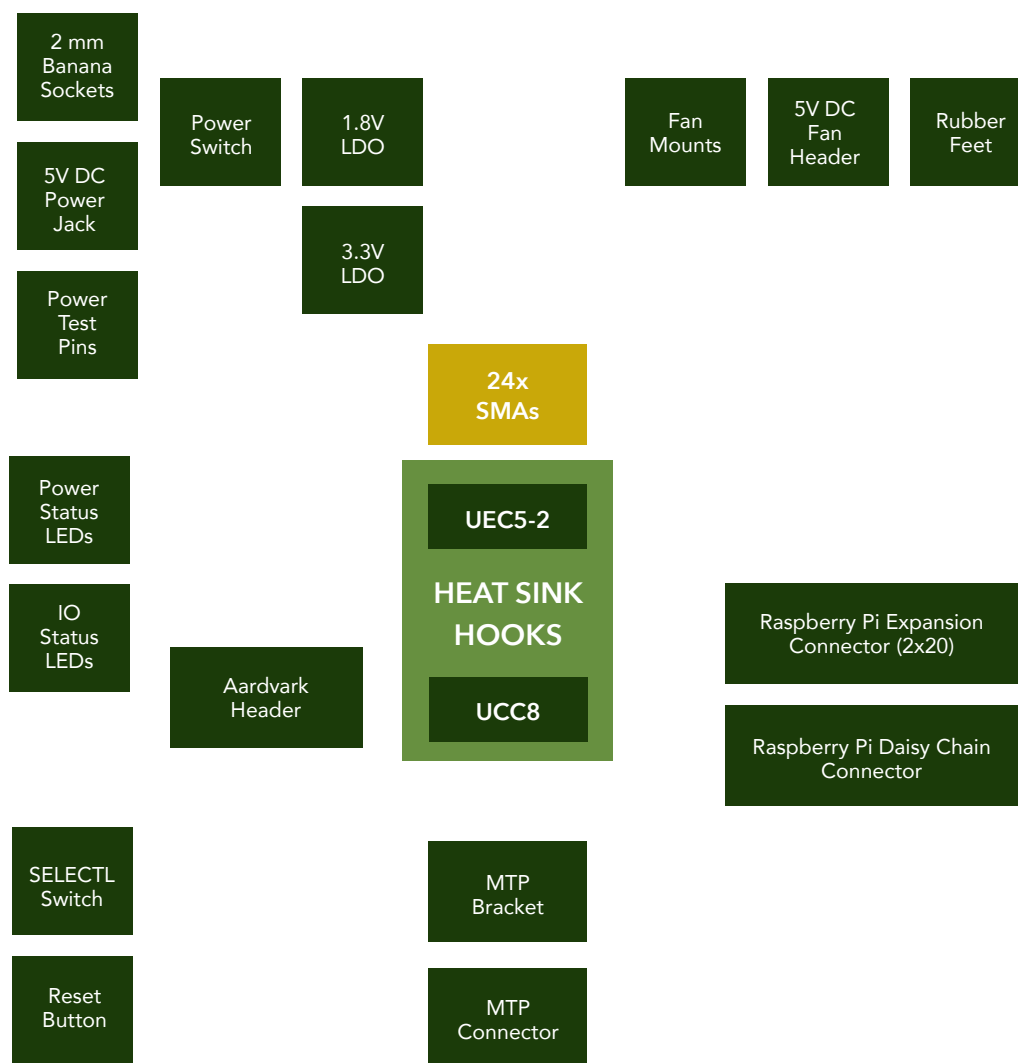- Raspberry Pi
- MicroSD card
- Quick Start Card

*Samtec Part No.
REF-209623-01 Pictured*

28 GBPS FIREFLY™ EVALUATION KIT SPECIFICATIONS

- Optional IDC support via Aardvark I2C/SPI Host Adapter connector available
- Dual 5V DC input options (Power Jack or Banana Sockets)
- Max power 20W (5V/4A)
- LED Indicators

- Optional 5V Fan Power supply
- Power Switch
- Reset Switch
- Select Switch

28 Gbps FIREFLY™ EVALUATION KIT SPECIFICATIONS BLOCK DIAGRAM

2 mm Banana Sockets	Power Switch	1.8V LDO	Fan Mounts	5V DC Fan Header	Rubber Feet
5V DC Power Jack		3.3V LDO			
Power Test Pins					
		24x SMAs			
Power Status LEDs		UEC5-2			
IO Status LEDs		HEAT SINK HOOKS	Raspberry Pi Expansion Connector (2x20)		
	Aardvark Header	UCC8	Raspberry Pi Daisy Chain Connector		
SELECTL Switch	MTP Bracket				
Reset Button	MTP Connector				

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