

25/28 GBPS FIREFLY™ FMC+ DEVELOPMENT KIT

VITA 57.4-COMPLIANT FMC+ MODULE CONNECTS FPGAs TO FIBER OPTIC CABLES UP TO 100 METERS

Samtec's 25/28 Gbps FireFly™ FMC+ Module provides up to 400/448 Gbps full-duplex bandwidth over up to 16 channels from an FPGA to an industry-standard multi-mode fiber optic cable. The FireFly™ optical engines provide adjustable power levels to support cable lengths up to 100 m. The Samtec 25/28 Gbps FireFly™ FMC+ Module supports Data Center, High Performance Computing and FPGA-to-FPGA protocols including Ethernet, InfiniBand™, Fibre Channel and Aurora.

As a VITA 57.4 FMC+ solution, the Samtec 25/28 Gbps FireFly™ FMC+ Module can be used for optical data communication on any FPGA development board supporting high-speed multi-gigabit transceivers. It can run system data or BERT testing on all channels in parallel. This makes evaluation and development with an FPGA much easier.

FEATURES:

- VITA 57.4 FMC+ Form Factor
- High Serial Pin Count (HSPC) VITA 57.4 FMC+ connector (Samtec P/N: ASP-184330-01)
- Four FireFly™ two-piece SMT connector systems (UCC8/UEC5-2 Series)
- Includes up to four FireFly™ AOCs operating at 850 nm
 - 25 Gbps: OTP-200941-01-ECUO
 - 28 Gbps: OTP-200940-01-ECUO
- Features optimized SI performance via Samtec Final Inch® BOR PCB trace routing for FireFly™ and HSPC connectors
- Supports up to 16 high-speed, multi-gigabit transceivers (TX and RX) operating at up to 25/28 Gbps per channel
- Industry-standard MTP®/MPO connectors

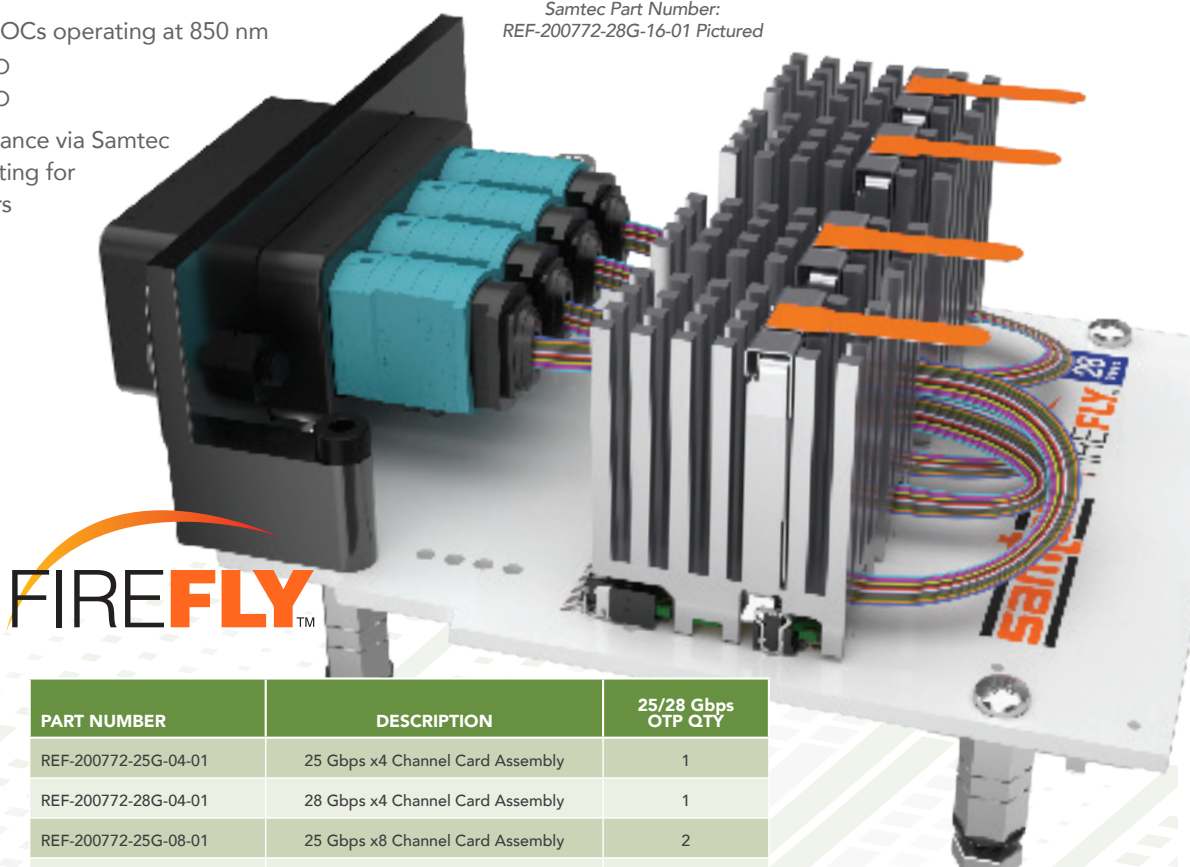
Samtec Part Number:
REF-200772-28G-16-01 Pictured

APPLICATIONS:

- FPGA Development
- Data Acquisition
- High Performance Computing
- Data Centers
- Telecommunications
- Test and Measurement
- High Resolution Imaging (i.e. Medical)
- Broadcast Video/Audio

KIT INCLUDES:

- 25/28 Gbps FireFly™ FMC+ Module
- Up to four FireFly™ AOCs
- MPO Loopback Module
- Quick Start Card
- Optical Connector Cleaners



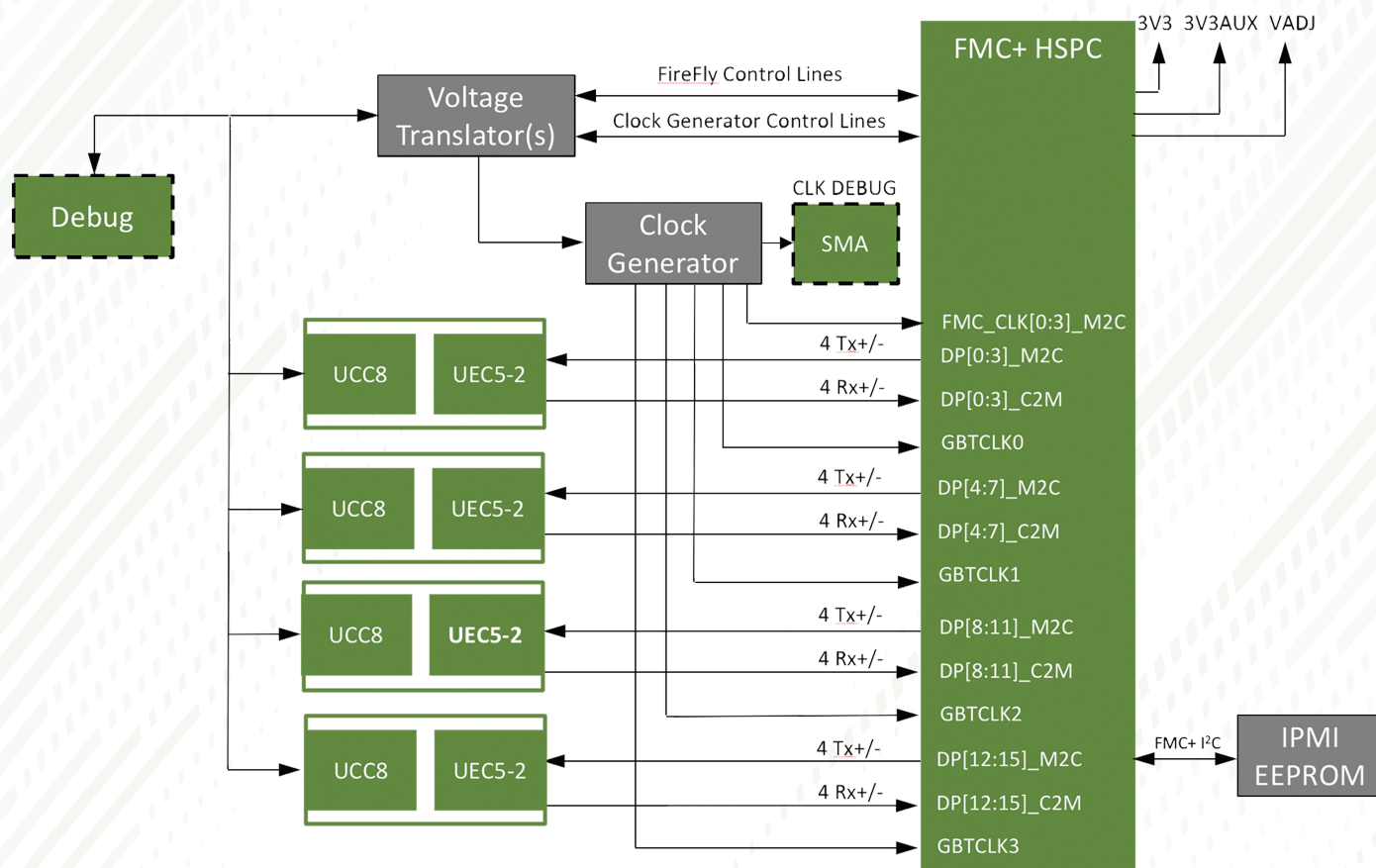
PART NUMBER	DESCRIPTION	25/28 Gbps OTP QTY
REF-200772-25G-04-01	25 Gbps x4 Channel Card Assembly	1
REF-200772-28G-04-01	28 Gbps x4 Channel Card Assembly	1
REF-200772-25G-08-01	25 Gbps x8 Channel Card Assembly	2
REF-200772-28G-08-01	28 Gbps x8 Channel Card Assembly	2
REF-200772-25G-12-01	25 Gbps x12 Channel Card Assembly	3
REF-200772-28G-12-01	28 Gbps x12 Channel Card Assembly	3
REF-200772-25G-16-01	25 Gbps x16 Channel Card Assembly	4
REF-200772-28G-16-01	28 Gbps x16 Channel Card Assembly	4

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For additional information or support on your next generation FireFly™ design, please visit www.samtec.com/25g-28g-firefly-fmcp or contact FireFly@Samtec.com.

- VITA 57.4 FMC+ form factor
- HSPC host maps 16 multi-gigabit transceivers
- I²C configuration interface
- Reset and interrupt signals
- Optional attenuation on transmit electrical signals
- Power Dissipation: ~10W typical, including up to four FireFly™ AOCs
- FMC I/O voltage: VADJ=1.2V, 1.5V, 2.5V or 3.3V (FPGA carrier card dependent)

25/28 GBPS FIREFLY™ FMC+ DEVELOPMENT KIT BLOCK DIAGRAM



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