SCKIPIO CP1010-EVM G.FAST CPE REFERENCE DESIGN

The Sckipio CP1010-EVM G.fast CPE Reference Design is a complete G.fast CPE solution including all the hardware and software needed to complete an end-to-end G.fast evaluation. The CP1010-EVM implements a single FTU-R transceiver that complies with the ITU G.fast recommendations (G.9700/1).

TARGET MARKETS

- Ultra High Speed Broadband for MDU and Single Family Units
- Ultra High Speed Broadband for Business

FEATURES

Broad Standards Support

- Fully compliant with the ITU-T G.fast Recommendation (G.9700/1)
- Compliant with ITU-T G.999.1 interface recommendation
- Supports ITU-T G.997.1 with future extensions for G.fast
- Supports ITU G.994.1 G.hs
- Support for ITU-T G.997.2
- Support for TR-156 and TR-167 Broadband Forum Architectures
- Support for IEEE 1588 Time Synchronization
- Supported Profiles: 106a profile

Full G.fast Performance

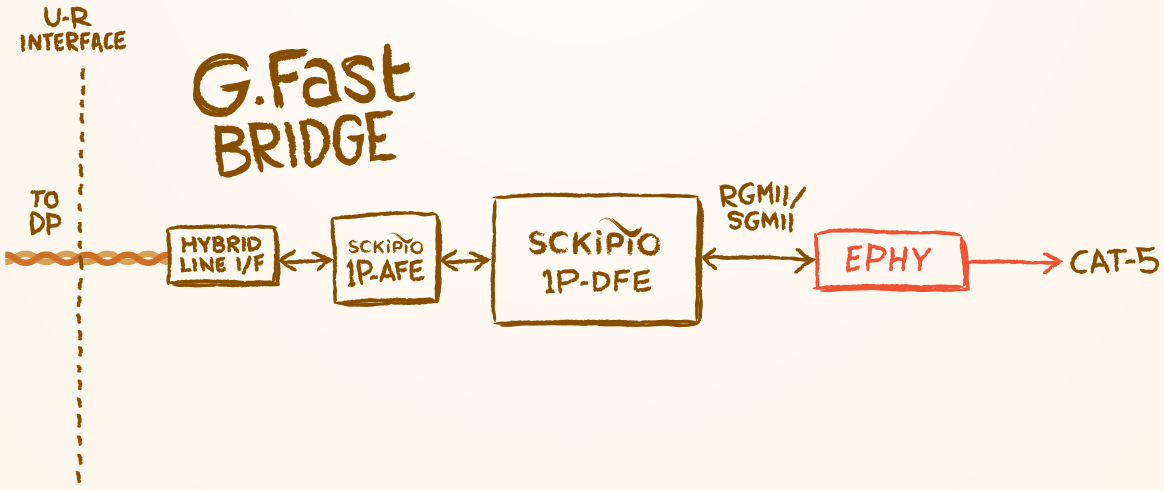
- Bandwidth: 2 - 106MHz (programmable)
- Max PHY rate: 1Gbps per line
- Flexible downlink/uplink bit rate ratio
- Co-exist with legacy technologies, e.g. ADSL, VDSL

Highly Efficient Design

- Single port Digital Front End
- Analog Front-End with integrated Line Driver
- All “on-chip” memory

Low Power Consumption

- Average active end-to-end transceiver power of <2 watts
- Low power modes supported across the whole reference design (DFE and AFE)
- Multiple power save modes lowering actual consumption under real life conditions
- Full discontinuous mode support for lower actual consumption under real-life conditions
- Support for L2.0, L2.1 low power states



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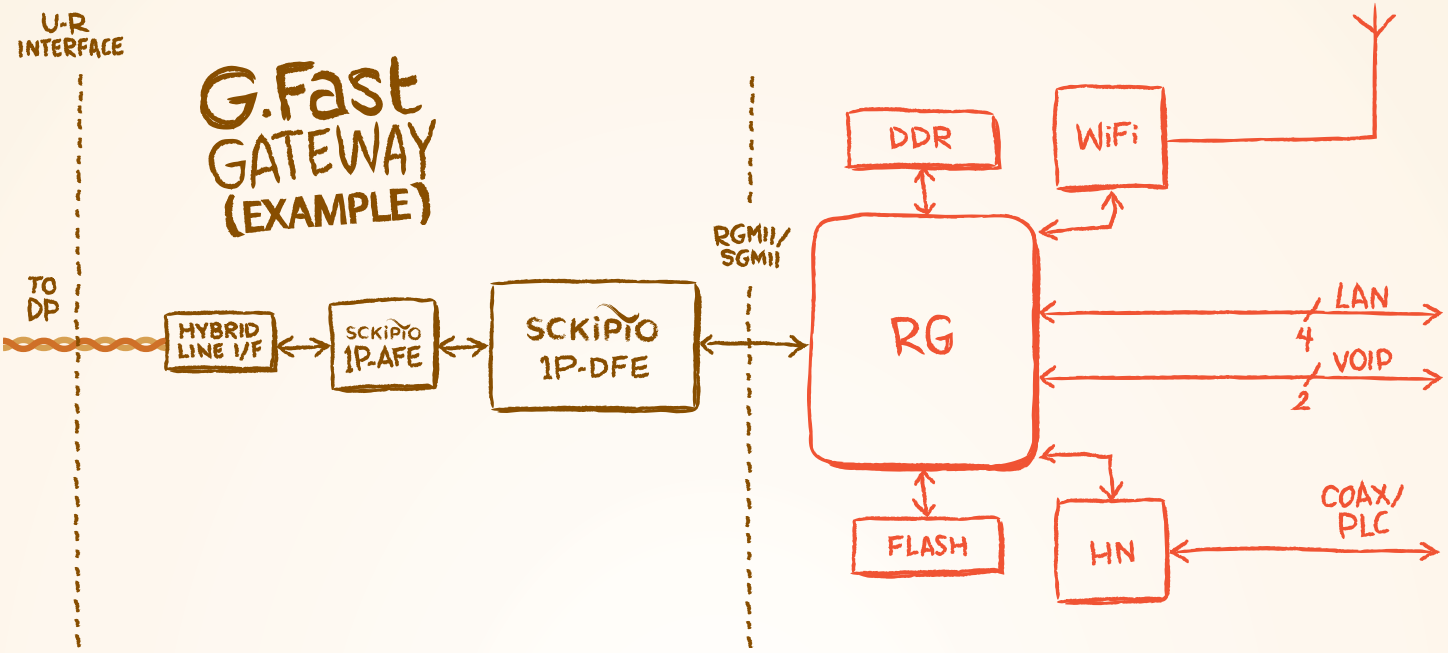

PHY-related

- Robust with high immunity to disturbers
- Fast Online Reconfiguration (OLR)
- Fast train/retrain time
- Flexible DTU size

Interfaces

- 100/1000BaseT
- MDIO management master and slave with Clause 22 and Clause 45 support
- Ethernet MAC and PHY mode support

Time and Synchronization

- Time-of-Day (ToD) synchronization to external clock reference
- Synchronization using low accuracy management protocol, IEEE 1588 or one PPS signal
- 8KHz Network Time Reference (NTR) support between DP and CPE

Management and Configuration

- Configuration interface for customized functionality
- Upgradeable firmware
- Full performance monitoring

Miscellaneous

- Full development system and reference design for fast time-to-market