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ST Unveils its DOCSIS 3.1 Chipset Solution, Opening Multi-Gigabit Era to Cable MSOs

Cost-effective, no-compromise performance, using innovative and future-proof architecture, prepared for first DOCSIS® 3.1 market deployments

Geneva, August 4, 2015 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, today announced the [STiD325](#) (codenamed Barcelona), its DOCSIS¹ 3.1 chipset for Broadband CPE² Cable Modems, embedded Media Terminal Adapters (eMTAs), and Gateways, as well as for Video Gateways when associated to set-top-box chipsets. It is being demonstrated at CableLabs Summer Conference, August 2-5, 2015 in Keystone, Colorado, USA.

DOCSIS 3.1 has been engineered by CableLabs® to unleash the multi-gigabit data era on existing Hybrid Fiber-Coax (HFC) networks through improved spectral efficiency using OFDM³ multi-carrier modulation combined with low-density parity-check-based Forward Error Correction.

“Prepared to be among the first commercial DOCSIS 3.1 deployments, our innovative platform architecture supports our ambition to make Barcelona a reference in the Cable industry,” said Philippe Notton, Group Vice President and General Manager of STMicroelectronics’ Consumer Product Division. “As a standalone for multi-gigabit cable gateways or combined with our Monaco SoC for an UltraHD media gateway, ST can offer complete solutions for fast design.”

Barcelona is fully compliant with the DOCSIS 3.1 specification, including:

- Two 196 MHz OFDM downstream channels;
- 32 single-carrier DOCSIS 3.0 QAM⁴ downstream channels;
- Two 96 MHz OFDM-A upstream channels;
- 8 single-carrier DOCSIS 3.0 QAM upstream channels.

¹ Data Over Cable Service Interface Specification

² Customer Premises Equipment includes the set-top boxes, routers, and gateways that operate at the customer’s locations.

³ Orthogonal Frequency Division Multiplexing is a method of encoding digital data on multiple carrier frequencies.

⁴ Quadrature Amplitude Modulation is a method for encoding digital data in an analog signal in which each combination of phase and amplitude represents one of sixteen 4-bit patterns.

ST has a long history with DOCSIS technology, having contributed to the standards and participated in all Acceptance Test Plan development committees and Interoperability tests. Demonstrating the value of that effort, the Barcelona early platform operated successfully in the world's first end-to-end DOCSIS 3.1 field test conducted earlier this year.

Designed for economy and performance, Barcelona features solid technical capabilities:

- Very high performance using multiple 64-bit ARM® CPUs to deliver >10K DMIPS, line-rate networking support on every port, and hardware acceleration for routing and switching, allowing Multiple System Operators (MSOs) to build future-proof CPE platforms with plenty of headroom to support the field introduction of new services;
- Backward compatibility with DOCSIS 3.0 32x8 to allow a smooth, cost-effective transition to DOCSIS 3.1;
- Flexible architecture facilitating independent software development and software upgrades with minimal coupling between stacks, as well as the introduction of new features like home surveillance and home automation; support of various Wi-Fi configurations;
- 28nm FD-SOI silicon technology, providing outstanding power efficiency at all operating levels, including fan-less designs, along with highly-efficient RF and analog integration.

Currently sampling to lead customers, Barcelona comes with pre-integrated RDK-B software, including DOCSIS and Packet-Cable stacks.

To learn more about the STiD325 chipset, please contact ST sales.

About STMicroelectronics

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2014, the Company's net revenues were \$7.40 billion. Further information on ST can be found at www.st.com.

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