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MaxLinear MxL85110 Gigabit Modem Drives GiaX HeEOS™ Solution in Field Trials for 5G Mobile Backhaul over the Cable Network

- *Product deployments underway at the largest Tier-1 European Cable Operator*

CARLSBAD, Calif.--(BUSINESS WIRE)-- MaxLinear, Inc. (NYSE: MXL), a leading provider of radio frequency (RF), analog and mixed-signal integrated circuits for the connected home, wired and wireless infrastructure, and industrial and multimarket applications, today announced that GiaX GmbH is in production with its HeEOS network system that delivers 10Gbps symmetrical throughput over coaxial cable infrastructure and is powered by the MxL85110 gigabit modem system on chip (SoC).

This press release features multimedia. View the full release here:
<https://www.businesswire.com/news/home/20200409005238/en/>



MaxLinear enables HeEOS Solution to deliver 10Gbps symmetrical throughput over coax (Graphic: Business Wire)

The introduction of 5G has resulted in more challenging requirements in terms of throughput, latency, reliability, and density of connections. It has also exacerbated capacity constraints already experienced in mobile networks due to increased data traffic. Fiber is the default transport network used for mobile backhaul but

its deployment can be costly and time consuming. The cost of equipment and labor can quickly add up, particularly with underground networks. Further, the time, cost, and uncertainty around securing necessary approvals can be equally burdensome.

Leveraging the high throughput and low latency provided by the MxL85110, the HeEOS solution provides a comprehensive Virtual Fiber™ solution that meets the evolving demands of mobile backhaul over the cable network without having to install fiber. By using the HeEOS solution, cable operators can take advantage of their existing coaxial infrastructure to backhaul traffic generated by 4G/5G mobile base stations. This solution enables a much faster network rollout and saves tens or potentially hundreds of millions of dollars in capital expenditures.

A tier-1 European cable operator is currently deploying the HeEOS solution over their existing coaxial network to provide a 10G Ethernet overlay network as backhaul technology for Remote PHY devices.

"We are excited that the HeEOS system is in production at a Tier-1 European operator and is being trialed for mobile backhaul applications. GiaX has addressed a capacity constraint within existing HFC networks enabling 5G backhaul deployment," said Brendan Walsh, Vice President of MaxLinear's Wireless Infrastructure Group. "By leveraging our technology, HeEOS supports data rates up to 10Gbps and has plenty of headroom to meet demands for increasing capacity. Our MxL85110 ensures throughput of up to 20Gbps is realizable using existing technology."

"The HeEOS system has been designed to support mobile backhaul. With support of synchronous Ethernet, 1588v2, and a close to single-digit microsecond delay per hop, mobile 4G/5G backhaul over coaxial cable is now possible," said Jörg Hellwig, CEO and Company Founder of GiaX. "Metro Ethernet Forum (MEF) operations and maintenance (OAM) type functionality of the HeEOS system will also be of use for the mobile operator."

MaxLinear MxL85110 Provides 20Gbps Throughput

HeEOS uses MaxLinear's MxL85110 chipset, which provides up to 20Gbps (10Gbps downstream and 10Gbps upstream) Ethernet capacity. The MxL85110 offers ultra-low latency of five microseconds per node and adaptive code modulation ranging from BPSK to 1024 QAM. The device can be programmed for flexible bandwidth from 25MHz to 2GHz, with independent asymmetric transmit and receive configuration. It also delivers the highest spectral and payload efficiency for efficient utilization of cable bandwidth with no MAC-layer overhead. Additional features used in the HeEOS solution include carrier-grade synchronous Ethernet and IEEE 1588v2 synchronization and an integrated management channel.

GiaX's HeEOS™ Solution

The HeEOS 10G Ethernet overlay system is a modem and switch technology that combines point-to-point Ethernet connections over existing coaxial cables into an Ethernet overlay system on the HFC network. This Ethernet overlay system offers fiber-like speeds as well as MEF management functions. HeEOS can currently transport up to 10Gbps in both upstream and downstream directions. For the Ethernet data transmission, unused frequency spectrum above frequencies used for DOCSIS 3.x and DVBC or MPEG is utilized. Depending on the cable type and frequencies used, transmission can be accomplished over several hundred meters.

For additional information on the MxL85110, visit www.maxlinear.com/MxL85110.

About MaxLinear, Inc.

MaxLinear, Inc. (NYSE: MXL) is a leading provider of radio frequency (RF), analog and mixed-signal integrated circuits for the connected home, wired and wireless infrastructure, and industrial and multimarket applications. MaxLinear is headquartered in Carlsbad, California. For more information, please visit www.maxlinear.com.

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About GiaX

GiaX develops communication solutions for service providers. Our goal is to develop innovative products with exceptional added value for our partners. Close cooperation with service providers results in solutions for demanding tasks that are optimally adapted to existing processes and business models. Together with our partners, we are creating an eco-system that, in addition to the products, also enables system integration, process and function outsourcing. For more information please visit: <http://www.GiaX.io/>.

Cautionary Note About Forward-Looking Statements

This press release contains “forward-looking” statements within the meaning of federal securities laws. Forward-looking statements include, among others, statements concerning or implying future financial performance, anticipated product performance and functionality of our products or products incorporating our products, and industry trends and growth opportunities affecting MaxLinear, in particular statements relating to MaxLinear’s MxL85110, including but not limited to potential market opportunities, functionality, and the benefits of use of such products. These forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from any future results expressed or implied by these forward-looking statements. We cannot predict whether or to what extent the MxL85110 will affect our future revenues or financial performance. Forward-looking statements are based on management’s current, preliminary expectations and are subject to various risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Forward-looking statements may contain words such as “will be,” “will,” “expected,” “anticipate,” “continue,” or similar expressions and include the assumptions that underlie such statements. The following factors, among others, could cause actual results to differ materially from those described in the forward-looking statements: intense competition in our industry and product markets; risks relating to the development, testing, and commercial introduction of new products and product functionalities; the ability of our customers to cancel or reduce orders; uncertainties concerning how end user markets for our products will develop; our lack of long-term supply contracts and dependence on limited sources of supply; potential decreases in average selling prices for our products; impacts from public health crises or natural disasters; and the potential for intellectual property litigation, which is prevalent in our industry. In addition to these risks and uncertainties, investors should review the risks and uncertainties contained in MaxLinear’s filings with the United States Securities and Exchange Commission, including risks and uncertainties identified in our Annual Report on Form 10-K for the year ended December 31, 2019. All forward-looking statements are qualified in their entirety by this cautionary statement. MaxLinear is providing this information as of the date of this release and does not undertake any obligation to update any forward-

looking statements contained in this release as a result of new information, future events, or otherwise.

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