MaxLinear Boosts its Gateway & Access Platform with Wi-Fi 7 Family of SoCs

- World’s first single-chip Wi-Fi 7 solution with 12 spatial streams delivering optimal Multi-Link experience

CARLSBAD, Calif.--(BUSINESS WIRE)-- MaxLinear Inc. (NASDAQ: MXL) today announced the seventh generation of its Wi-Fi SoC solution targeting service provider gateways, Wi-Fi routers, and access points. The highly-integrated Wi-Fi 7 family of chips offers an industry-first single-SoC solution that delivers more than 70% higher tri-band throughput verses Wi-Fi 6. The chips are currently sampling to selected partners and MaxLinear-enabled products are expected in 2023.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20221018005583/en/

“Our Wi-Fi 7 single-chip solution enables fast, robust, and reliable connectivity elevating the user experience,” said Will Torgerson, vice president and general manager, Broadband group for MaxLinear. “We help our partners reduce complexity, drive form-factor innovation, and spend less time designing next generation gateways, routers and access points.”

Wi-Fi 7 - also called Extremely High Throughput (EHT) - is one of the most significant Wi-Fi upgrades to date. Built on the IEEE 802.11be standard, it delivers 11.5Gbps of peak throughput on the 6GHz spectrum. This makes the throughput more than twice as fast as the previous generation, Wi-Fi 6. This increase is accomplished by doubling the bandwidth to 320MHz and enhancing the modulation to 4096 QAM.

Making the untethered experience more robust, Multi-Link Operation (MLO) is another marquee Wi-Fi 7 feature which enables channel aggregation to deliver lower latency and
higher throughput in congested environments.

MaxLinear Wi-Fi 7 advantages include:

- **Lowers total system cost and development time:** Single chip reduces total Bill of Material (BOM) and board complexity, with less time spent on thermal, mechanical, and PCB designs. Single chip also drives smaller form-factor which enables system integrators to build more elegant product designs.
- **Provides seamless, coordinated view of multi-bands for optimal MLO experience:** Single chip has one coordinated view of data flows across multiple channels in dual- and tri-band configurations for faster recovery from retransmissions during interference. This improves link robustness and client efficiency, enables deterministic latency and higher throughput for demanding high-bandwidth applications in heavily congested environments like Multi-Dwelling Units.
- **Enhances network efficiency with “On-the-fly MAC”:** MaxLinear’s improved proprietary “on-the-fly MAC” architecture optimizes large and small packet scheduling and performance. It reduces the overheads in the data path and enables quick recovery from data retransmissions during interference.
- **Reduces dead spots with dedicated chain for ZWFDS:** Provides seamless operations in DFS channels while adhering to stringent DFS (re)entry rules. Delivers uncompromised 4x4 range and performance reducing dead spots while offering best-in-class user experience.

When used with MaxLinear’s gateway and access products, AnyWAN™, the solution can be highly optimized to deliver unparalleled performance, maintaining quality of service end-to-end, and delivering line-rate throughputs inside and outside of the home.

The Wi-Fi 7 Family consists of two chips: The MxL31712 and the MxL31708. The MxL31712 is targeted for premium segment 4x4 tri-band market targeting throughput up to 18.6Gbps. The MxL31708 is targeted for mid- to high-range 4x4 dual-band market targeting throughput up to 17Gbps.

Common features applicable to both chips include:

- Single chip WFA Wi-Fi 7 R1 certifiable
- Based on IEEE 802.11be (EHT); backward compliant to IEEE 802.11a/b/g/n/ac/ax
- Support Key Wi-Fi 7 features such as:
  - Bandwidth up to 320MHz
  - 4096 QAM modulation
  - Multi-Link Operation (MLO)
  - Multi Resource Unit (MRU)
- Dedicated antenna for Zero Wait DFS (ZWDFS)
- Enhanced Network Efficiency
- DPD
- Automatic Frequency Coordination (AFC) support
- Fully offloaded Wi-Fi traffic
- Coexistence support for PAN radios
- Interface(s): PCIe Gen4

For more information and technical specifications, visit maxlinear.com/wifi7
“The number of Wi-Fi connected devices at home and at the office is skyrocketing and will continue to do so as we move to Wi-Fi 7 and its greater capacity, speed, and reliability. Wi-Fi 7 will enable a whole new level of connectivity for smart home applications such as the metaverse, security, and 24/7 elder monitoring,” said Chris Depuy, Technology Analyst at 650 Group. “Wi-Fi 7 represents one of the biggest improvements in the technology standard to date, taking full advantage of key throughput and reliability features such as Multi-Link Operation, 320MHz in the 6 GHz band, and more.”

“Lower latency, increased reliability, and gigabit speed will be the hallmarks of Wi-Fi 7. Homes, enterprise, and consumers will surely reap the benefits of Wi-Fi 7 and from MaxLinear’s ability to maximize next-gen potential with their highly integrated solution. As a valued WBA Member, we applaud MaxLinear’s continued commitment to innovative solutions for next generation Wi-Fi,” said Tiago Rodrigues, CEO, Wireless Broadband Alliance.

About MaxLinear, Inc.

MaxLinear, Inc. (NASDAQ: MXL) is a leading provider of radio frequency (RF), analog, digital and mixed-signal integrated circuits for access and connectivity, 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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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 Wi-Fi 7 family of SoC chips, including but not limited to, with respect to the anticipated size of the home gateway markets, the timing of such products availability in the market, and the functionality, performance, integration and benefits of use of such products, including in connection with MaxLinear’s AnyWAN gateway and access 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 these new and existing products 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," "expect," "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, such as the Covid-19 pandemic, geopolitical conflicts, such as the military conflict in Ukraine and related sanctions against Russia and Belarus, 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 arising from other factors affecting the business, operating results, and financial condition of MaxLinear, including those set forth in MaxLinear's most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, as applicable. 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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