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MaxLinear and RFHIC Deliver High-Efficiency Power Amplifier Solution for 5G Macro Cell Radio Units

- *RFHIC GaN Power Amplifier combined with MaxLinear's Linearization Technology reduces the Power Consumption, Weight and Volume of 5G Radio Units*

CARLSBAD, Calif.--(BUSINESS WIRE)-- MaxLinear, Inc. (Nasdaq: MXL), a leader in wireless infrastructure silicon solutions, and RFHIC Corporation (KOSDAQ: 218410) today announced that RFHIC's GaN power amplifiers (PA) and MaxLinear's Sierra single chip Radio SoC have together delivered breakthrough energy efficiency for very high power macro cell Radio Units (RU). This combined PA solution reduces the radio's power consumption, weight and volume, enabling Open RAN vendors to deliver new RU products that are smaller, lighter, and more energy efficient.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20250225580022/en/

MaxLinear and RFHIC deliver high-efficiency power amp solution for 5G macro cell radio units (Graphic: Business Wire)

The combination of MaxLinear's Digital Pre-Distortion (DPD) linearization technology (MaxLIN), running on the Sierra single chip Radio SoC, and RFHIC's ID19801D GaN high-efficiency power amplifier, driven by RFHIC's SDM19007-30H drive amplifier, provides breakthrough line-up power efficiency of 55.2% with excellent linearized performance (ACLR < -61dBc and EVM < 3%) at 49.6dBm (91W) while operating in the PCS band from 1930 MHz to 1995 GHz with 2xNR10MHz carriers.

"Energy efficiency has become one of the highest priorities for global operators to meet their OPEX and ESG targets," said Puneet Sethi, MaxLinear's Vice President, Wireless Infrastructure. "MaxLinear's Sierra Radio SoC, with MaxLIN DPD technology, together with

RFHIC's GaN power amplifiers enables Open RAN radio vendors to meet these challenging demands with a platform for new high efficiency RU."

"As 5G deployments continue to grow worldwide, network providers need to scale their coverage in a fast and cost-efficient manner," said Samuel Cho, Founder and CTO of RFHIC. "We can deliver COTS and customizable solutions in a fraction of the time due to our one-stop GaN solution process. This process allows our customers to design and build their products more efficiently and get to market faster."

"Integration of power amplifiers, digital predistortion, and transceivers has become an absolutely critical part of radio design", commented Joe Madden, Principal Analyst at Mobile Experts. "High efficiency leads to smaller heatsinks…this is key because of the high cost of renting space on towers. Modern multi-band networks are making this aspect of cost control more important than ever for mobile operators."

MaxLinear and RFHIC will be demonstrating this high-efficiency power amplifier solution for high power Personal Communications Service (PCS) macro radios at the Mobile World Congress 2025 trade show (Hall 2, Meeting Room 2L8MR) from March 3-6.

More about MaxLinear's Single-Chip Radio Solution

Sierra is an innovative Radio SoC that flexibly supports all major RU applications, including traditional macro, massive MIMO, pico, all-in-one small cells, and more. Sierra integrates the following sub-systems into a single chip, providing a complete software-programmable radio signal processing engine for O-RUs:

- RF transceiver supporting up to 8 transmitters, 8 receivers, and 2 feedback receivers
- Digital Front End (DFE) including MaxLIN digital pre-distortion (DPD) and crest factor reduction (CFR), and Passive Intermodulation (PIM) cancellation
- Low-PHY baseband processor supporting 5G, 4G, and NB-IoT air interfaces
- O-RAN Alliance Split 7.2x fronthaul interface

For more information on the Sierra RF Radio SoC or MaxLIN DPD linearization technology, visit:

- www.maxlinear.com/sierra
- www.maxlinear.com/maxlin

More about RFHIC GaN Power Amplifiers

RFHIC offers a comprehensive range of GaN transistors and turnkey EVB solutions for O-RAN applications, supporting N77 and N79 bands. The ID Series GaN power transistors operate from 1.8GHz to 4.2GHz, with available saturated power levels of 410W, 460W, 700W, and 800W.

Additionally, RFHIC provides 2-stage hybrid drive amplifiers (SDM Series)—fully integrated microstrip GaN hybrid modules, internally matched to 50 ohms and housed in a ceramic surface-mount package. These amplifiers cover 1.8GHz to 4.1GHz, with available power levels of 40W, 60W, and 80W.

For seamless integration and testing, RFHIC also offers compact ultra-high-power EVB

solutions, which include an evaluation test board, pre-drive amplifier, and main transistor.

For more details on RFHIC's O-RAN technology and solutions, visit our website or contact us at http://www.rfhic.com/contact

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 https://www.maxlinear.com/.

About RFHIC

RFHIC Corporation provides innovative GaN solutions that transform how the world operates, communicates, and protects. Our cutting-edge GaN technology is the core foundation of all our inventions for creating a better, faster, and more efficient world. As a global leader in designing and manufacturing GaN RF & Microwave components, we envision spurring a new era of high-powered and reliable devices for the next big change in industrial, cellular, and defense technology. Headquartered in Anyang, South Korea.

RFHIC has a US sales office in Morrisville, North Carolina, and sales distributors throughout North America, Europe, and Asia. RFHIC is an ISO9001 (International quality standard) and ISO14001 (Environmental management standard) certified company, providing reliable and dependable products worldwide. For more information, please visit www.rfhic.com.

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, statements by MaxLinear's Vice President, Wireless Infrastructure and RFHIC's Founder and CTO, statements relating to industry trends and growth opportunities affecting MaxLinear, statements relating to the partnership between MaxLinear and RFHIC and statements relating to MaxLinear's Sierra and MaxLIN solutions, including but not limited to, with respect to anticipated growth in the potential market opportunities for such products and the functionality, performance 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 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,” “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: risks relating to the partnership between MaxLinear and RFHIC, risks relating to the development, testing, and commercial introduction of new products and product functionalities; risks relating to our terminated merger with Silicon Motion and related arbitration and class action complaint and the risks related to potential payment of damages; the effect of intense and increasing competition; impacts of global economic conditions; the cyclical nature of the semiconductor industry; a significant variance in our operating results and impact on volatility in our stock price, and our ability to sustain our current level of revenue, which has previously declined, and/or manage future growth effectively, and the impact of excess inventory in the channel on our customers’ expected demand for certain of our products and on our revenue; the geopolitical and economic tensions among the countries in which we conduct business; increased tariffs, export controls or imposition of other trade barriers; our ability to obtain or retain government authorization to export certain of our products or technology; risks associated with international geopolitical and military conflicts; risks related to the loss of, or a significant reduction in orders from major customers; costs of legal proceedings or potential violations of regulations; information technology failures; a decrease in the average selling prices of our products; failure to penetrate new applications and markets; development delays and consolidation trends in our industry; inability to make substantial research and development investments; delays or expenses caused by undetected defects or bugs in our products; substantial quarterly and annual fluctuations in our revenue and operating results; failure to timely develop and introduce new or enhanced products; order and shipment uncertainties; failure to accurately predict our future revenue and appropriately budget expenses; lengthy and expensive customer qualification processes; customer product plan cancellations; failure to maintain compliance with government regulations; failure to attract and retain qualified personnel; any adverse impact of rising interest rates on us, our customers, and our distributors and related demand; risks related to compliance with privacy, data protection and cybersecurity laws and regulations; risks related to conforming our products to industry standards; risks related to business acquisitions and investments; claims of intellectual property infringement; our ability to protect our intellectual property; risks related to security vulnerabilities of our products; use of open source software in our products; and failure to manage our relationships with, or negative impacts from, third parties. 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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