

# MaxLinear Delivers Turnkey Satellite Channel Stacking Solution for New Ultra-Compact D-ODU from PBI

 Pro Brand International Picks Industry-Leading MxL801 Ku-band satellite downconversion RF IC and MxL862 channel-stacking SoC for next-generation digital-ODU

CARLSBAD, Calif.--(BUSINESS WIRE)-- MaxLinear Inc. (NYSE: MXL), a leading provider of integrated radio frequency (RF) and mixed-signal integrated circuits for broadband communications applications, today announced Pro Brand International Inc. (PBI), has launched a new direct broadcast satellite digital outdoor unit (D-ODU) leveraging the MaxLinear MxL801 dual-polarity Ku-band satellite down-conversion RF IC, and the MxL862 24-channel, Full-Spectrum Capture™ (FSC™) channel-stacking system on chip (SoC).

PBI is a leading developer of advanced satellite antenna, and channel-stacking low-noise block down converter (LNB) products that is leading the market transition to multi-channel solutions.

The MxL80x devices are the industry's first family of dual-polarity Ku-band down-conversion RF ICs targeted at satellite digital channel stacking and band translation LNBs, and universal quad/quattro and wide-band LNBs. The MxL801 is optimized for operator-class digital LNBs and integrates the complete Ku-band down-conversion functionality on a single-chip including image rejection filtering, crystal oscillator and phase-locked loop and bias voltage generator for external low-noise amplifiers (LNAs). The unmatched level of integration greatly simplifies the LNB Ku-band front-end design and eliminates the need for factory calibration and tuning.

The MxL862 delivers up to 24 satellite channels over a single coax cable for simplified connection between an indoor set-top box or gateway and a rooftop LNB. The MxL862 supports two ultra-low power FSC wideband RF inputs that capture the whole MxL801 down-conversion output signal bandwidth.

The MxL801 and MxL862 chipset offers the lowest power and most integrated D-ODU solution for the single-feed satellite LNB market, enabling ultra-small form factor designs. These devices along with the EN50494/EN50607 software protocol stack provide a complete turnkey solution to OEMs. By leveraging the system solution from MaxLinear, PBI is able to significantly reduce the development time needed to bring a cutting edge D-ODU product to market addressing worldwide operator requirements.

MaxLinear and PBI have previously collaborated on a multi-feed D-ODU, for which PBI selected the MxL865 FSC channel-stacking SoC.

"PBI's innovative D-ODU design will result in the industry's smallest digital LNB, which is a significant advancement in a competitive market. We're glad that our chipset is such a significant element in this groundbreaking design," said Yves Rasse, Senior Product Line Director for Satellite and Terrestrial TV. "Digital ODUs are an exciting development in multichannel satellite infrastructure, and MaxLinear's down conversion and channel stacking chipset provides a complete turnkey solution that simplifies board design, cuts costs and reduces design time."

"The D-ODU market is emerging quickly and becoming very competitive, which is why we are innovating our latest product family to be the smallest and highest performance unit on the market," said Jim Crownover, Pro Brand Chief Executive Officer. "Our partnership with MaxLinear keeps these efforts on track thanks to the company's innovative and highly integrated chipset solutions."

#### MxL801 Technical Details

The MxL801 RF IC is part of the MxL80x product family of dual Ku-band down-conversion RF ICs. The devices feature dual Ku-band radio-frequency inputs (10.7 GHz to 12.75 GHz) and dual wideband IF outputs (200 MHz to 2350 MHz) to dramatically simplify the LNB frontend design.

The MxL80x RF ICs integrate the complete dual-polarity Ku-band down-conversion functionality including image reject filtering, down-conversion mixers, IF amplifiers, crystal oscillator and phase-locked loop and negative bias voltage generator for external low-noise amplifiers (LNAs). The MxL801 is optimized for operation with the MxL86x digital channel stacking SoCs.

All MxL80x devices can be configured either using an I2C interface or via programmable pins. The I2C configurability enables a highly optimized and flexible system solution when an MxL80x device is combined with an MxL86x SoC.

## MxL862 Technical Details

The MxL862 is part of the MxL86x product family of digital stacking SoCs. These devices are based on MaxLinear's ultra-low power Full-Spectrum Capture technology and integrate a complete 24-channel digital stacking switch platform including DiSEqC and FSK communication modems and a microcontroller.

The MxL862 is optimized for single-feed LNB applications. The SoC provides a flexible and very cost-effective, digital channel-stacking system solution, including the EN50494 and EN50607 standard protocol software for single-cable distribution. The device can also be configured in universal L-band switch mode for backward compatibility with legacy STBs and with dish alignment measurement equipment typically used by installers.

The part is packaged in a 10mm x 10mm QFN. Due to the high levels of system integration, the bill of material (BOM) is reduced to a minimal number of low-cost, passive components, which enables ultra-compact, low-cost system solutions when compared to existing analog implementations.

## About Pro Brand International Inc.

Pro Brand International is a leading designer and developer of advanced antenna and RF systems for the satellite and telecommunications (wireless) sectors. Pro Brand serves the leading North American DBS operators, and has extensive expertise in related verticals such as very small aperture terminals (VSATs). Through its in-house engineering design team combined with advanced R&D labs, state-of-the-art feed range and an indoor compact antenna range, Pro Brand offers shortened time to market and a complete end-to-end solution.

# About MaxLinear, Inc.

MaxLinear, Inc. is a leading provider of radio-frequency and mixed-signal semiconductor solutions for broadband communications applications. MaxLinear is headquartered in Carlsbad, California. For more information, please visit <a href="https://www.maxlinear.com">www.maxlinear.com</a>.

MxL, Full-Spectrum Capture, FSC and the MaxLinear logo are trademarks of MaxLinear, Inc. Other trademarks appearing herein are the property of their respective owners.

# **Cautionary Note About Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, among others, statements concerning or implying future financial performance or trends and growth opportunities affecting MaxLinear, in particular statements relating to Pro Band International's selection of the MaxLinear MxL801 dual-polarity Ku-band satellite downconversion RF IC and the MxL862 24-channel FSC channel stacking SoC for its direct broadcast satellite D-ODU. 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 we will realize revenues from our relationship with Pro Band International. Forward-looking statements are based on management's current, preliminary expectations and are subject to various risks and uncertainties, including (among others) intense competition in our industry; the ability of our customers, including Pro Band International, 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; currently pending intellectual property litigation; and the potential for additional 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 Quarterly Report on Form 10-Q for the guarter ended September 30, 2014. 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.

#### MaxLinear Inc. Press Contact:

David Rodewald
The David James Agency LLC
+1 805-494-9508
david@davidjamesagency.com

or

# **MaxLinear Inc. Corporate Contact:**

Yves Rasse Senior Product Line Director for Satellite and Terrestrial TV +1 760-692-0711

yrasse@maxlinear.com

Source: MaxLinear Inc.