Extreme broadband amplifiers tout desirable noise figure performance

NXP Semiconductors N.V. announced the availability of a new family of extreme-broadband amplifiers, applicable for CATV, broadcast TV, satellite systems and general ISM applications – the BGA3012, BGA3015 and BGA3018. Performance characteristics include high P1dB and OIP3, very low noise figures, 5-V and 8-V supply voltage operation and a desirable ESD rating, making these amplifiers suitable for applications that require robustness and outstanding gain, noise and linearity performance whileproviding end users with improved reception quality and higher bandwidth. Consisting of three gain level types, BGA3012, BGA3015 and BGA3018 with 12 dB, 15 dB and 18 dB gain respectively, the extreme-broadband amplifiers are said to outperform comparable GaAs devices in noise figure performance by 5 dB and input power rating by more than 20 dB. Based on the company's QUBiC4 (BiCMOS) technology, the high integration and reduced footprint of this extreme-broadband amplifier family is asserted to save on BOM costs, improve reliability and offer significant savings in manufacturing expenditure. With a ESD rating of 2 kV, the amplifiers are easy to adopt in current and future designs. This new extreme-broadband amplifier family is well-suited for a variety of broadband TV distribution system applications, such as FTTH (fiber to the home), home gateways and set-top-boxes. Extending performance across a very wide frequency range – from 5 MHz up to 2.6 GHz – the devices' improved low-end frequency performance makes them suitable as both forward and return path amplifiers, removing the need for customers to purchase multiple solutions.

NXP Semiconductors N.V, www.nxp.com [1]

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