Small-Cell Wireless Infrastructure Power Amplifiers

ANADIGICS introduced the AWB7128 and AWB7228 power amplifiers (PAs) for E-UTRA Band 7 WCDMA and LTE applications. The ANADIGICS small-cell wireless infrastructure PA family delivers an industry-leading combination of high output power, efficiency, and linearity. This level of performance is optimized for the rapidly growing class of small-cell base stations that includes picocells, enterprise-class femtocells, and high performance customer premises equipment (CPE).

“The continual increase in consumer demand for wireless data is fueling the rapid deployment of small-cell wireless infrastructure devices, such as picocells and femtocells,” said Glenn Eswein, director of product marketing for broadband RF products at ANADIGICS. “ANADIGICS’ small-cell power amplifier family delivers the highest output power, power-added efficiency, and linearity in its class, enabling manufacturers to develop compact, esthetic, high throughput devices that offer service providers an economical path to expand broadband network coverage. Working closely with device manufacturers, we are expanding this family to help bring the same performance and design flexibility to additional frequency bands.”

The AWB7128 and AWB7228 wireless infrastructure PAs are optimized for WCDMA, HSPA, and LTE small-cell base stations operating in the 2620 MHz to 2690 MHz frequency band. The AWB7128 provides +24.5 dBm linear output power, while the AWB7228 delivers +27 dBm linear output power. These power amplifiers use ANADIGICS’ exclusive InGaP-*Plus*™ technology to achieve best-in-class efficiency and linearity at these output power levels, enabling small-cell wireless infrastructure solutions that are more thermally-efficient, consume less power, and provide greater range.

ANADIGICS AWB7128 and AWB7228 PA Key Facts and Highlights:

- World-Class Performance
    - Performance optimized for 1/2 Watt (AWB7228) and 1/4 Watt (AWB7128) linear power applications
    - Exceptional linearity of -47 dBc ACPR @ +/- 10 MHz offset (10 MHz channel bandwidth)
    - Best-in-class power-added efficiency (PAE) at rated output power
    - Excellent thermal performance with low transistor junction temperature
    - WCDMA, HSPA, and LTE compliant
    - Industry-Leading Integration
        - RF matching optimized for output power, efficiency, and linearity in a 50 ohm system

- Compact 7 mm x 7 mm x 1.3 mm surface mount package

ANADIGICS Small-Cell Wireless Infrastructure PA Family Key Specifications:

Product	Frequency Band	Output Power	Efficiency	Gain
AWB7123 [1]	1930 to 1990 MHz	+24.5 dBm	18%	31 dB
AWB7223 [2]	1930 to 1990 MHz	+27 dBm	14%	29 dB
AWB7127 [3]	2110 to 2170 MHz	+24.5 dBm	18%	30 dB
AWB7227 [4]	2110 to 2170 MHz	+27 dBm	14%	29 dB
AWB7128 [5]	2620 to 2690 MHz	+24.5 dBm	16%	28 dB
AWB7228 [6]	2620 to 2690 MHz	+27 dBm	14%	27 dB

Engineering samples of the AWB7128 and AWB7228 are available now for qualified programs.

www.anadigics.com [7]

Posted by Janine E. Mooney, Editor

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Links:
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