



## **Guerrilla RF's High Performance Gain Blocks Feature Robust Linearity and Low Noise**

*Next-Generation Gain Blocks Retain High Linearity Performance over Temperature,  
Tone Spacing and Multi-Carrier Environments*

**San Francisco – May 23, 2016** – Guerrilla RF Inc., a leading provider of high performance MMICs, today introduces new additions to the company's family of high linearity gain blocks featuring a unique combination of simple-application schematic, flat gain and high compressed output power which operate from 50 MHz up to as high as 8 GHz. The GRF201X family of devices is offered in a 1.5 x 1.5 mm DFN-6 package and the GRF301X family is packaged in the popular SOT-89. Devices from both families provide strong linearity measured over a wide temperature range from -40C to +105C and over-tone spacing up to 100 MHz.

“Guerrilla RF is proud to offer these new gain blocks which address a critical industry need for cost-effective, broadband amplifiers delivering strong, consistent performance over a wide range of operating conditions. With flexible biasing and Vdd capability up to 9 volts, these amplifiers provide consistent, broadband IP3 performance and compressed output power that cellular infrastructure applications require,” said Alan Ake, vice president of applications and technical marketing at Guerrilla RF. “High performance systems demand devices which can maintain their performance under extreme operating conditions. Parts which perform well only over a narrow range of temperature and operating conditions are of limited value.”

According to Research and Markets, the overall wireless network infrastructure market will witness tremendous growth over the coming years. At a compound annual growth rate of over 5 percent, the market will account for over \$104 billion in annual spending by the end of 2020.

**About Guerrilla RF's New Gain Blocks**

- The [GRF201X](#) family consists of the [GRF2012](#), [GRF2013](#) and [GRF2014](#) devices. All can be operated over a wide range of Vdd from 3.0 to 9.0 volts. An important feature offered by the tiny 1.5 mm package is the ability to control Iddq independently from Vdd as this allows the device efficiency to be optimized for a given application requirement. These devices offer leading performance at 5 volts and, when biased at 8 or 9 volts, they can provide broadband compressed output powers of 27 dBm and higher. In addition to strong linearity, the high gain, GRF2013 offers very low NF of 1.3 dB which makes it an excellent choice for broadband LNA applications.
- The SOT-89 based [GRF3012](#), [GRF3013](#), [GRF3014](#) and [GRF3015](#) offer similar performance to the GRF201X devices and they provide similar ranges of gain, NF and linearity. These SOT-89 variants can also be used as drop-in replacements for industry standard SOT-89 gain blocks while offering superior performance.

### **Pricing and Availability**

Pricing for 10,000 parts is \$1.75 for the GRF2012 and GRF2013, and \$1.60 for the GRF3012, GRF3013 and GRF3015. 10k prices for the higher power GRF2014 and GRF3014 are \$1.95 and \$1.80 respectively. All product families will be available for sampling in June 2016.

### **About Guerrilla RF**

Guerrilla RF provides high performance monolithic microwave integrated circuits (MMICs) to wireless infrastructure original equipment manufacturers in multiple market segments, including enterprise/carrier-class WiFi access points, small cells, wireless backhaul and cellular repeaters. Headquartered in Greensboro, N.C., the company was founded in April 2013 and to date, it has raised more than \$4.0 million in funding. GRF is currently sampling over 40 devices with more than 15 of those in volume production. All trademarks are the property of their respective owners. For more information, please visit <http://guerrilla-rf.com> or follow the company on [LinkedIn](#).