



## New Broadband Gain Blocks with Bypass

Part of Guerrilla RF's expanding portfolio of 1.5 mm DFN-6 devices, the GRF204X broadband gain blocks with **low-loss bypass** offer a range of flat-gain, high-linearity options to support a variety of applications from 30 MHz to 6 GHz and beyond. Their flexible biasing characteristics allow for the optimization of power consumption to suit specific application requirements.

Sampling now, the new [GRF2042](#) and [GRF2043](#) devices are bypass versions of [GRF2012](#) and [GRF2013](#), respectively. The gain-mode performance of these devices is similar to that of their corresponding non-bypass variants.

### Key Strengths of GRF204X Gain Blocks:

- Outstanding gain flatness, linearity and NF/insertion loss in gain and bypass modes
- Robust linearity performance with wide-bandwidth, high-PAR signals
- Combination of linearity and low NF at lower frequencies make excellent IF amplifiers
- Internally matched, requiring a minimum of external components
- Excellent performance over temperature from –40 to 105 degrees C
- All devices utilize the same 1.5 mm DFN-6 package and share a common pin out/layout with over 30 other amplifiers

**Performance Summary Table:**

Device	Freq (MHz)	Vdd (V)	Iddq (mA)	Gain (dB)	OIP3 (dBm)	OP1dB (dBm)	NF (dB)	Bias Range (volts)	Bias Range (mA)	Status
GRF2011	1900	5.0	90	14.8	38.5	22.5	2.0	2.7 to 8.0	15 to 100	Production
GRF2012 GRF2012-W	1900	5.0	90	14.0	38.5	23.0	2.7	2.7 to 8.0	15 to 100	Production
GRF2013 GRF2013-W	1900	5.0	90	18.0	38.0	22.5	1.3	2.7 to 8.0	15 to 100	Production
GRF2014	1900	5.0	150	15.0	42.5	24.0	3.5	2.7 to 8.0	50 to 180	Production
Coming soon!										
GRF2042 Bypass Mode	1900	5.0	90 <2.0	14.5 -2.0	38.5 42.5	22.0 18.5	2.3 2.0	2.7 to 8.0	15 to 100	Sampling now
GRF2043 Bypass Mode	1900	5.0	90 <2.0	18.0 -1.5	37.5 46.5	22.0 25.0	1.6 1.5	2.7 to 8.0	15 to 100	Sampling now

Again, these gain blocks are part of a growing family of amplifiers which all use the same package, pin out and layout. At more than 30 devices, these parts comprise an RF tool kit to support a wide variety of gain, NF, linearity and bypass requirements. Should system specifications change, it is a simple matter to swap parts without the need for a board spin.

Regardless of your technical requirements, Guerrilla RF is committed to providing the high-performance RF solutions and applications support necessary to make your product a success.

For more information, [contact your local Brennan Associates Representative](#).