runwise

Runwise, Inc.
104 W 27th Street
Floor 3
New York, NY 10001-6469

To whom it may concern:

This letter is regarding the Runwise RF Module, FCC ID 2AQX2-G2RWMOD, IC 24232-G2RWMOD.

The radio microcontroller has its own internal regulator to ensure consistent RF power output. The power amplifier does derive its DC feed from an unregulated input, but it has an additional gain control shunt regulator to ensure that its gain is consistent. The module also has an RF power detection circuit which can be used to further regulate the TX power through active software control. This additional software control was not enabled for certification testing in order to fairly represent a worst case scenario.

The range of input voltages tested at the lab spanned the absolute maximum range where the unit could operate - from brownout up to the listed maximums of some components. This is well beyond its intended operating range of 3.3 to 3.7V. In our testing, the output power only varies by about +/- 0.3 dB across this range - always in a monotonic fashion, trending predictably downward as voltage decreases.

As for ensuring compliance within our own products, host circuits will be designed to hold the module's voltage at 3.55V, +/- 0.05V. Under these conditions, we see consistency within +/- 0.1 dB.

Best Regards,

Christopher Garman, PE
Director of Hardware Engineering
Runwise, Inc.