**C64 WIFI Modem (User Port) Rev. 0**

**Testing**

# Setup

The C64 WiFi Modem Rev. 0 is driven by a C64 (Mainboard: ASSY250469 with ARMSID), which also connects to an Ultimate II+. The NodeMCU’s firmware was installed and running.

# Current consumption

The current is measured with a Fluke 89 IV multimeter, which is connected between the power supply and the Power jack of the C64.

First the maximum current of the C64 setup mentioned before is determined without the DUT being connected to the user port. CCGMS 2017 v6 was loaded from the Ultimate II+.

The measured result IMAX is 998.7mA.

In the next step, the DUT was connected and the measurement was repeated. This time, the result is 1095.5mA.

The current consumption of the Modem board might vary depending on the operations/state. It can eb assumed, that is it approximately 100mA.

# Connection Test

With the CCGMS software, the Modem was set up, three different WiFi connections were established:

* An iPad Pro acting as an access point
* A WAP (wireless access point)
* A Router

The connections to the WiFi networks could be established, repeatedly. The WAP did not connect anymore after a few days. Since the WAP was far away and all other connections continued working, it was assumed, that either the settings or the distance of the WAP were causing the problem.

After setting up the dialer with several BBS connections and Port numbers, the Wifi-Modem and CCGMS software could connect to those BBSes and exchange data and hold the connection in a stable behavior.

The Status LED was normally on, it turned out to be inverted in the NodeMCU’s firmware. On receive, the TxD LED is blinking. TxD refers to the NodeMCU’s perspective. On Transmit, the RxD LED is blinking.

# Conclusion

The functionality of Rev. 0 is given, the labeling of the LEDs needs to be changed. The Status LED needs to be inverted.