FCC ID _Tune Up Procedure

Measurement Procedure:

1. Set the device to operational voltage and on a predefined channel in a special test mode.

2. The actual output power is measured at several power levels.

3. The gain factors of each individual device are adjusted until the target value is met. The appropriate gain control settings for each output power level are stored in each device individually (for each power level). The user has no possibility to change these settings later on.

4. The maximum gains of each individual device are adjusted and measured until the target value is met. The production target power with tolerance compiles with the maximum power in test report.

Rated RF power output:

Mode	BT
GFSK	8±1dBm
π/4-DQPSK	8±1dBm
8DPSK	8.5±1dBm

Mode	BLE
GFSK(1Mbps)	8±1dBm
GFSK(2Mbps)	8±1dBm

Mode	2.4G WLAN
802.11b	17±1dBm
802.11g	15.5±1dBm
802.11n(HT20)	15±1dBm
802.11n(HT40)	14.5±1dBm
802.11ax(HE20)	14.5±1dBm
802.11ax(HE40)	15±1dBm

Mode	5.2G WLAN
802.11a	14±1dBm
802.11 n-HT20	13.5±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13.5±1dBm
802.11 ac-VHT40	14±1dBm
802.11 ac-VHT80	14±1dBm
802.11 ax-HE20	13.5±1dBm
802.11 ax-HE40	13.5±1dBm
802.11 ax-HE80	13.5±1dBm

Mode	5.3G WLAN
802.11a	13.5±1dBm
802.11 n-HT20	13.8±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13.8±1dBm
802.11 ac-VHT40	13.8±1dBm
802.11 ac-VHT80	14±1dBm
802.11 ax-HE20	13.8±1dBm
802.11 ax-HE40	13.5±1dBm
802.11 ax-HE80	13.8±1dBm

Mode	5.6G WLAN
802.11a	14±1dBm
802.11 n-HT20	13.5±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13.5±1dBm
802.11 ac-VHT40	14±1dBm
802.11 ac-VHT80	13±1dBm
802.11 ax-HE20	13.5±1dBm
802.11 ax-HE40	14.1±1dBm
802.11 ax-HE80	14±1dBm

Mode	5.8G WLAN
802.11a	14±1dBm
802.11 n-HT20	13.5±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13±1dBm
802.11 ac-VHT40	13±1dBm
802.11 ac-VHT80	12.5±1dBm
802.11 ax-HE20	13±1dBm
802.11 ax-HE40	12.5±1dBm
802.11 ax-HE80	12±1dBm

Then these appropriate rated RF output power settings are stored in each device individually. The user has no possibility to change these settings later on, and during manufacturing each device will be individual calibrated. The measurement is done in fully calibrated setup, which is based on the base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).