



Tune up procedure for FCC ID: BYMBP5GC1

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:

Technology/Band	Mode	Target Power and Tolerance (dBm)
LTE Band 2 ANT 1	QPSK	23.5±1.0
	16QAM	22.5±1.0
LTE Band 4 ANT 1	QPSK	23.5±1.0
	16QAM	23.0±1.0
LTE Band 5 ANT 1	QPSK	23.0±1.0
	16QAM	22.0±1.0
LTE Band 7 ANT 1	QPSK	23.0±1.0
	16QAM	22.0±1.0
LTE Band 12 ANT 1	QPSK	23.0±1.0
	16QAM	22.0±1.0
LTE Band 13 ANT 1	QPSK	23.5±1.0
	16QAM	22.5±1.0
LTE Band 48 ANT 1	QPSK	23.5±1.0
	16QAM	22.5±1.0
LTE Band 66 ANT 1	QPSK	24.0±1.0
	16QAM	23.0±1.0



NR Band NR2 ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	23.5 ± 1.0
	DFT-s-OFDM QPSK	23.5 ± 1.0
	DFT-s-OFDM 16QAM	22.5 ± 1.0
	DFT-s-OFDM 64QAM	20.5 ± 1.0
	DFT-s-OFDM 256QAM	19.0 ± 1.0
	CP-OFDM QPSK	22.0 ± 1.0
	CP-OFDM 16QAM	21.5 ± 1.0
	CP-OFDM 64QAM	20.0 ± 1.0
	CP-OFDM 256QAM	17.0 ± 1.0
15	DFT-s-OFDM QPSK	23.5 ± 1.0
10	DFT-s-OFDM QPSK	23.5 ± 1.0
5	DFT-s-OFDM QPSK	23.5 ± 1.0

NR Band NR5 ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	23.5 ± 1.0
	DFT-s-OFDM QPSK	23.5 ± 1.0
	DFT-s-OFDM 16QAM	22.0 ± 1.0
	DFT-s-OFDM 64QAM	21.0 ± 1.0
	DFT-s-OFDM 256QAM	19.0 ± 1.0
	CP-OFDM QPSK	22.0 ± 1.0
	CP-OFDM 16QAM	21.5 ± 1.0
	CP-OFDM 64QAM	20.0 ± 1.0
	CP-OFDM 256QAM	17.0 ± 1.0
15	DFT-s-OFDM QPSK	23.5 ± 1.0
10	DFT-s-OFDM QPSK	23.5 ± 1.0
5	DFT-s-OFDM QPSK	23.5 ± 1.0



NR Band NR48 ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	23.0 ± 1.0
	DFT-s-OFDM QPSK	23.0 ± 1.0
	DFT-s-OFDM 16QAM	22.0 ± 1.0
	DFT-s-OFDM 64QAM	20.5 ± 1.0
	DFT-s-OFDM 256QAM	18.5 ± 1.0
	CP-OFDM QPSK	22.0 ± 1.0
	CP-OFDM 16QAM	21.0 ± 1.0
	CP-OFDM 64QAM	19.5 ± 1.0
	CP-OFDM 256QAM	16.5 ± 1.0
15	DFT-s-OFDM QPSK	23.0 ± 1.0
10	DFT-s-OFDM QPSK	23.0 ± 1.0

NR Band NR66 ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	23.5 ± 1.0
	DFT-s-OFDM QPSK	23.5 ± 1.0
	DFT-s-OFDM 16QAM	22.5 ± 1.0
	DFT-s-OFDM 64QAM	21.0 ± 1.0
	DFT-s-OFDM 256QAM	19.0 ± 1.0
	CP-OFDM QPSK	22.0 ± 1.0
	CP-OFDM 16QAM	21.5 ± 1.0
	CP-OFDM 64QAM	20.0 ± 1.0
	CP-OFDM 256QAM	16.5 ± 1.0
15	DFT-s-OFDM QPSK	23.5 ± 1.0
10	DFT-s-OFDM QPSK	23.5 ± 1.0
5	DFT-s-OFDM QPSK	23.5 ± 1.0



NR Band NR77(3450MHz-3550MHz) ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	25.5 ± 1.0
	DFT-s-OFDM QPSK	$25.5 \pm .0$
	DFT-s-OFDM 16QAM	22.5 ± 1.0
	DFT-s-OFDM 64QAM	21.0 ± 1.0
	DFT-s-OFDM 256QAM	19.0 ± 1.0
	CP-OFDM QPSK	22.0 ± 1.0
	CP-OFDM 16QAM	21.5 ± 1.0
	CP-OFDM 64QAM	20.0 ± 1.0
	CP-OFDM 256QAM	16.5 ± 1.0
15	DFT-s-OFDM QPSK	25.5 ± 1.0
10	DFT-s-OFDM QPSK	25.5 ± 1.0

NR Band NR77(3700MHz-3980MHz) ANT 1		
Bandwidth(MHz)	Mode	Target Power and Tolerance(dBm)
20	DFT-s-OFDM BPSK	25.5 ± 1.0
	DFT-s-OFDM QPSK	25.5 ± 1.0
	DFT-s-OFDM 16QAM	24.5 ± 1.0
	DFT-s-OFDM 64QAM	23.0 ± 1.0
	DFT-s-OFDM 256QAM	21.0 ± 1.0
	CP-OFDM QPSK	23.5 ± 1.0
	CP-OFDM 16QAM	22.5 ± 1.0
	CP-OFDM 64QAM	22.0 ± 1.0
	CP-OFDM 256QAM	19.0 ± 1.0
15	DFT-s-OFDM QPSK	25.5 ± 1.0
10	DFT-s-OFDM QPSK	25.5 ± 1.0



Band	Mode	Target Power and Tolerance (dBm)
		ANT 3
Bluetooth	GFSK	4.00±1.0
	π /4-DQPSK	5.50±1.0
	8-DPSK	6.00±1.0

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).