

## RF EXPOSURE EVALUATION

FCC ID: U45-NETX219

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b):

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [f_{(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR,<sup>16</sup> where

- $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

### Maximum measured transmitter power.

ANT 0:

Test Mode: IEEE 802.11a

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5745	5.44	27.69	Pass
Mid	5785	5.21	27.69	Pass
High	5825	5.17	27.69	Pass

ANT 0:

Test Mode: IEEE 802.11n(HT20)

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5745	5.77	27.69	Pass
Mid	5785	5.50	27.69	Pass
High	5825	5.94	27.69	Pass

ANT 0:

Test Mode: IEEE 802.11n(HT40)

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5755	5.95	27.69	Pass
High	5795	5.87	27.69	Pass

ANT 1:

Test Mode: IEEE 802.11a

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5745	5.68	27.69	Pass
Mid	5785	5.39	27.69	Pass
High	5825	5.74	27.69	Pass

ANT 1:

Test Mode: IEEE 802.11n(HT20)

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5745	5.78	27.69	Pass
Mid	5785	5.15	27.69	Pass
High	5825	5.56	27.69	Pass

ANT 1:

Test Mode: IEEE 802.11n(HT40)

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit (dBm)	Result
Low	5755	5.89	27.69	Pass
High	5795	5.95	27.69	Pass

#### ANT 0

Mode	Maximum output power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (dBm)	Distance (mm)	Calculation results (W/kg)	1-g SAR Limit (W/kg)
802.11a	5.44	4~6	6	25	0.38	3
802.11n (20)	5.94	4~6	6	25	0.38	3
802.11n(40)	5.95	4~6	6	25	0.38	3

#### ANT 0

Mode	Maximum output power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (dBm)	Distance (mm)	Calculation results (W/kg)	1-g SAR Limit (W/kg)
802.11a	5.74	4~6	6	25	0.38	3
802.11n (20)	5.78	4~6	6	25	0.38	3
802.11n(40)	5.96	4~6	6	25	0.38	3

#### MIMO

Mode	Calculation results (W/kg)		Sum Calculation results (W/kg)	1-g SAR Limit (W/kg)
	ANT0	ANT 1		
802.11n(20)	0.58	0.58	0.76	3
802.11n(40)	0.38	0.38	0.76	3

#### 2.4G Power

Channel Frequency (MHz)	Peak Power output(dBm)	Peak Power Limit(dBm)	Results
2403	<b>9.264</b>	30	PASS
2446	9.225	30	PASS
2478	9.098	30	PASS

Mode	Maximum output power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (dBm)	Distance (mm)	Calculation results (W/kg)	1-g SAR Limit (W/kg)
2.4G	<b>9.264</b>	7.5~9.5	9.5	5	2.806	3

This device 5GHz and 2.4GHz can not transmit simultaneously .

Test Results: **PASS**.

