



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: ZVA02

Project No. : 1211C167
Equipment : 300Mbps Wireless USB Adapter
Model : MT-WN813NM
Applicant : TCL Technoly Electronics(Huizhou) Co.,Ltd
**Address : Section 19, Zhongkai High-tech Development
Zone, Huizhou City, Guang Dong Province,
China,516006**

According: : FCC Guidelines for Human Exposure IEEE C95.1

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	Printed	N/A	2.37	5G
2	N/A	N/A	Printed	N/A	2.37	5G

Note: The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R)

Operating Mode TX Mode	1TX	2TX
802.11a	V (ANT1 or ANT2)	-
802.11n(20MHz)	-	V (ANT1 & ANT2)
802.11n(40MHz)	-	V (ANT1 & ANT2)



TEST RESULTS

EUT:	300Mbps Wireless USB Adapter	Model Name :	MT-WN813NM
Temperature:	25 °C	Relative Humidity :	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX A Mode/CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.37	1.7258	12.42	17.4582	0.00599723	1	Complies
2.37	1.7258	12.57	18.0717	0.00620798	1	Complies
2.37	1.7258	12.41	17.4181	0.00598343	1	Complies

EUT:	300Mbps Wireless USB Adapter	Model Name :	MT-WN813NM
Temperature:	25 °C	Relative Humidity :	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 Mode/CH36, CH40, CH48 ANT 1+ANT 2		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.37	1.7258	13.13	20.5589	0.00706237	1	Complies
2.37	1.7258	12.93	19.6336	0.00674451	1	Complies
2.37	1.7258	12.86	19.3197	0.00663667	1	Complies

EUT:	300Mbps Wireless USB Adapter	Model Name :	MT-WN813NM
Temperature:	25 °C	Relative Humidity :	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N40 Mode /CH38, CH46 ANT 1+ANT 2		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.37	1.7258	12.57	18.0717	0.00620798	1	Complies
2.37	1.7258	12.76	18.8799	0.00648560	1	Complies