



**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 /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.37	1.7258	18.38	68.8652	0.02365649	1	Complies
2.37	1.7258	18.04	63.6796	0.02187512	1	Complies
2.37	1.7258	17.69	58.7489	0.02018136	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 /CH149, CH157, CH165 ANT 1+ANT 2		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.37	1.7258	18.86	76.9130	0.02642107	1	Complies
2.37	1.7258	17.93	62.0869	0.02132801	1	Complies
2.37	1.7258	17.90	61.6595	0.02118119	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 /CH151, CH159 ANT 1+ANT 2		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.37	1.7258	18.09	64.4169	0.02212842	1	Complies
2.37	1.7258	18.26	66.9885	0.02301179	1	Complies