Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: VJA-RJ1301

Project No.	**:**	**1402132**
Equipment	**:**	**Mini PCI Radio Module, 2x2 IEEE 802.11 b/g/n ,2.4 GHz**
Model	**:**	**RJ-1301**
Applicant	**:**	**RAJANT CORPORATION**
Address	**:**	**400 EAST KING STREET, MALVERN PA 19355**
According:	**:**	**FCC Guidelines for Human Exposure IEEE C95.1**

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

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

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)
1	PCTEL	BOA24005NM-RJT	DIPOLE OMNI-DIRECTIONAL	N-Type	5dBi
2	PCTEL	BOA24005NM-RJT	DIPOLE OMNI-DIRECTIONAL	N-Type	5dBi

TEST RESULTS

EUT：	Mini PCI Radio Module, 2x2 IEEE 802.11 b/g/n ,2.4 GHz	Model Name ：	RJ-1301
Temperature：	26°C	Relative Humidity：	46%
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX B MODE /CH01, CH06, CH11		

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
5	3.1623	23.34	215.7744	0.13581582	1	Complies
5	3.1623	25.10	323.5937	0.20368093	1	Complies
5	3.1623	22.02	159.2209	0.10021907	1	Complies

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Temperature：	26°C	Relative Humidity：	46%
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX G MODE /CH01, CH06, CH11		

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
5	3.1623	24.89	308.3188	0.19406641	1	Complies
5	3.1623	26.62	459.1980	0.28903496	1	Complies
5	3.1623	26.08	405.5085	0.25524096	1	Complies

EUT：	Mini PCI Radio Module, 2x2 IEEE 802.11 b/g/n ,2.4 GHz	Model Name ：	RJ-1301
Temperature：	26°C	Relative Humidity：	46%
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX N-20M MODE /CH01, CH06, CH11 Ant1+Ant2 total		

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
5	3.1623	25.52	356.4511	0.22436255	1	Complies
5	3.1623	27.89	615.1769	0.38721339	1	Complies
5	3.1623	27.46	557.1857	0.35071179	1	Complies

EUT：	Mini PCI Radio Module, 2x2 IEEE 802.11 b/g/n ,2.4 GHz	Model Name ：	RJ-1301
Temperature：	26°C	Relative Humidity：	46%
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX N-40M MODE /CH03, CH06, CH09 Ant1+Ant2 total		

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
5	3.1623	22.77	189.2344	0.11911059	1	Complies
5	3.1623	27.12	515.2286	0.32430255	1	Complies
5	3.1623	26.85	484.1724	0.30475467	1	Complies

The calculated distance is 20cm