



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: ZQO-DWPCIE83

Project No. : 1107C138
Equipment : Half-size mini-PCle digital wireless audio module
Model : DWPCIE83
Applicant : STANDARD MICROSYSTEMS CORPORATION
Address : 3930, EAST RAY ROAD SUITE 200, PHOENIX,
IArizona, United States
According: : FCC Guidelines for Human Exposure IEEE C95.1

Neutron Engineering Inc.

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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

| Ant. | Brand name | Model Name | Antenna Type | Connector | Gain (dBi) | |
|------|------------|----------------------------------|--------------|-----------|------------|------|
| A | WNC | WNC_ANT | PIFA | U.FL | 4.80 | 5.2G |
| B | | _WIMAX_3 D-2_2300-5 850MHz | | | | |

TEST RESULTS

5.2G Frequency range: 5180/5210/5240MHz

| | | | |
|--------------|--|--------------------|--------------|
| EUT: | Half-size mini-PCIe digital wireless audio module | Model Name : | DWPCIe83 |
| Temperature: | 25 °C | Relative Humidity: | 60 % |
| Pressure: | 1012 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX MODE 5180/5210/5240MHz (Normal Power mode -Antenna A) | | |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-----------------|
| 4.80 | 3.0200 | 13.1700 | 20.7491 | 0.01247241 | 1 | Complies |
| 4.80 | 3.0200 | 12.1700 | 16.4816 | 0.00990719 | 1 | Complies |
| 4.80 | 3.0200 | 11.7000 | 14.7911 | 0.00889100 | 1 | Complies |



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| Temperature: | 25 °C | Relative Humidity: | 60 % |
| Pressure: | 1012 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX MODE 5180/5210/5240MHz (Normal Power mode -Antenna B) | | |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-----------------|
| 4.80 | 3.0200 | 12.5700 | 18.0717 | 0.01086301 | 1 | Complies |
| 4.80 | 3.0200 | 12.5400 | 17.9473 | 0.01078823 | 1 | Complies |
| 4.80 | 3.0200 | 11.2400 | 13.3045 | 0.00799743 | 1 | Complies |