



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: O9C-BJNGAFB0003

Project No. : 1406049
Equipment : Unified Wired-WLAN Walljack
Model Name : BJNGA-FB0003;JG971A

Applicant : Hewlett Packard Company
Address : 153 Taylor Street Littleton Massachusetts, United States
: 01460-1407

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 | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|-----------------------------|----------------------|--------------|-----------|------------|
| A | HONGLIN TECHNOLOGY CO., LTD | WP338 PIFA ANTENNA-1 | PIFA Antenna | N/A | 4.20 |
| B | HONGLIN TECHNOLOGY CO., LTD | WP338 PIFA ANTENNA-2 | PIFA Antenna | N/A | 2.10 |



TEST RESULTS

| | | | |
|--------------|---|--------------------|-------------------------|
| EUT: | Unified Wired-WLAN Walljack | Model Name : | BJNGA-FB0003; JG971A |
| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 22.11 | 162.5549 | 0.08510408 | 1 | Complies |
| 4.20 | 2.6303 | 21.97 | 157.3983 | 0.08240439 | 1 | Complies |
| 4.20 | 2.6303 | 21.86 | 153.4617 | 0.08034343 | 1 | Complies |

| | | | |
|--------------|---|--------------------|-------------------------|
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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 24.37 | 273.5269 | 0.14320242 | 1 | Complies |
| 4.20 | 2.6303 | 24.83 | 304.0885 | 0.15920268 | 1 | Complies |
| 4.20 | 2.6303 | 24.04 | 253.5129 | 0.13272428 | 1 | Complies |



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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 23.86 | 243.2204 | 0.12733576 | 1 | Complies |
| 4.20 | 2.6303 | 24.08 | 255.8586 | 0.13395236 | 1 | Complies |
| 4.20 | 2.6303 | 23.97 | 249.4595 | 0.13060216 | 1 | Complies |

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|--------------|---|--------------------|-------------------------|
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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (20 MHz)/ 2412 MHz, 2437 MHz, 2462 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2.10 | 1.6218 | 23.71 | 234.9633 | 0.07584909 | 1 | Complies |
| 2.10 | 1.6218 | 24.47 | 279.8981 | 0.09035462 | 1 | Complies |
| 2.10 | 1.6218 | 23.98 | 250.0345 | 0.08071428 | 1 | Complies |



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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 22.79 | 190.1078 | 0.09952917 | 1 | Complies |
| 4.20 | 2.6303 | 23.97 | 249.4595 | 0.13060216 | 1 | Complies |
| 4.20 | 2.6303 | 22.48 | 177.0109 | 0.09267239 | 1 | Complies |

| | | | |
|--------------|--|--------------------|-------------------------|
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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2.10 | 1.6218 | 22.85 | 192.7525 | 0.06222292 | 1 | Complies |
| 2.10 | 1.6218 | 24.31 | 269.7739 | 0.08708641 | 1 | Complies |
| 2.10 | 1.6218 | 23.49 | 223.3572 | 0.07210251 | 1 | Complies |



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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 26.80 | 478.6301 | 0.25058229 | 1 | Complies |
| 4.20 | 2.6303 | 27.29 | 535.7967 | 0.28051131 | 1 | Complies |
| 4.20 | 2.6303 | 26.99 | 500.0345 | 0.26178838 | 1 | Complies |

| | | | |
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| Temperature: | 25 °C | Relative Humidity: | 55 % |
| Pressure: | DC 48V | | |
| Test Mode : | IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 4.20 | 2.6303 | 25.83 | 382.8247 | 0.20042430 | 1 | Complies |
| 4.20 | 2.6303 | 27.15 | 518.8000 | 0.27161289 | 1 | Complies |
| 4.20 | 2.6303 | 26.02 | 399.9447 | 0.20938732 | 1 | Complies |

Note: The calculated distance is 20cm