

● Product Features

- 2.4GHz ~ 2.5GHz (ISM band)
- Above 50% efficiency at CW 250W
- Power Control
- Phase Control
- VSWR Tracking Function (Option)
- Soft start Function (Option)

● Applications

- Plasma Lighting System
- RF Heating and Drying
- Solid state Microwave OVEN
- Semiconductor Equipment
- Bio & Health Sciences



● Electrical Specification @ $V_{DS} = +32V$, $T_{CASE} = 50^{\circ}C$, 50 Ω System

| Parameter | Symbol | MIN | TYP | MAX | Units |
|-----------------------------|--------|-----|--------------|-----|-------|
| Operating Frequency | F_O | 2.4 | - | 2.5 | GHz |
| Bandwidth | - | - | 100 | - | MHz |
| CW Output Power | P_O | - | 54 | - | dBm |
| Output Power Control | - | 50 | - | 250 | W |
| Gain Flatness | G_F | - | - | 1 | dB |
| Operating Voltage | V_O | - | 32 ± 0.3 | - | V |
| Current consumption @ 54dBm | - | - | ≤ 15.6 | - | A |
| Efficiency @ 54dBm | Eff | - | ≥ 50 | - | % |

● Special Function (control Interface: UART)

| Parameter | Specification |
|--------------------|---------------------------|
| Power Control | 0 ~ 6dB (resolution: 1dB) |
| Phase Control | 0 ~ 360° (resolution: 1°) |
| VSWR Tracking Step | 100KHz (Option) |
| Operating Method | Manual / Auto (option) |

● Environmental Characteristics

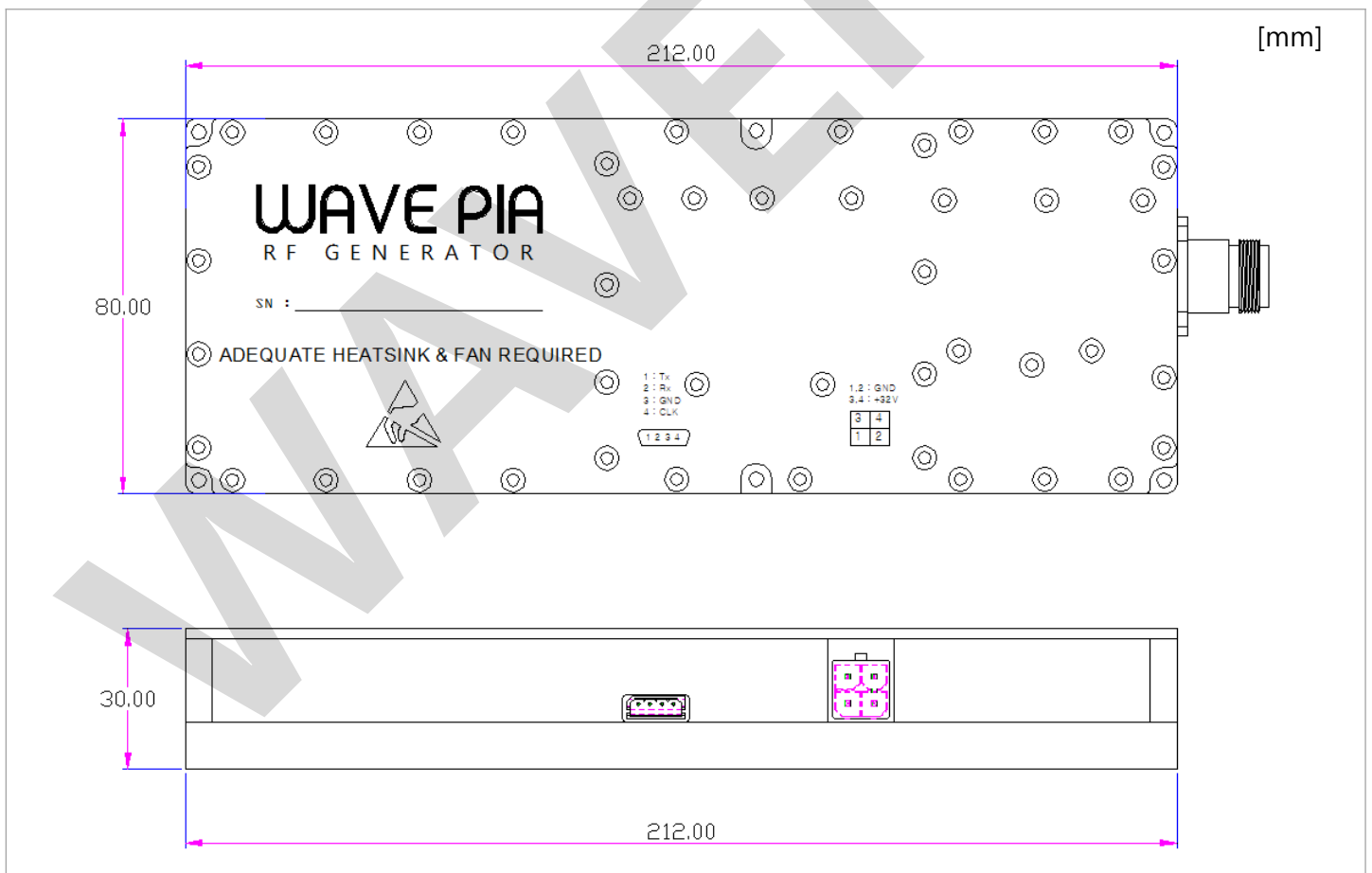
| Parameter | Symbol | MIN | TYP | MAX | Units |
|------------------------------------|-----------|-----|-----|-----|-------------|
| Operating Temperature | T_{OP} | -30 | - | 60 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -40 | - | 105 | $^{\circ}C$ |
| Relative humidity (Non-condensing) | RH | 0 | - | 95 | % |

● Mechanical Specifications

| Parameter | Units | VALUE |
|------------------------|-------|----------------------------------|
| Dimensions(L x W x H) | mm | 212 x 80 x 30 |
| Weight | Kg | ≤ 0.94 |
| RF Output Connector | - | N-type Connector(F) |
| Power Supply Connector | - | Molex 4Pin (76825-0004) |
| I/O connector | - | Molex 4Pin (22-03-5045) |
| Cooling | - | External Heat-sink & cooling FAN |

* Mechanical specifications can be customized upon customer requests

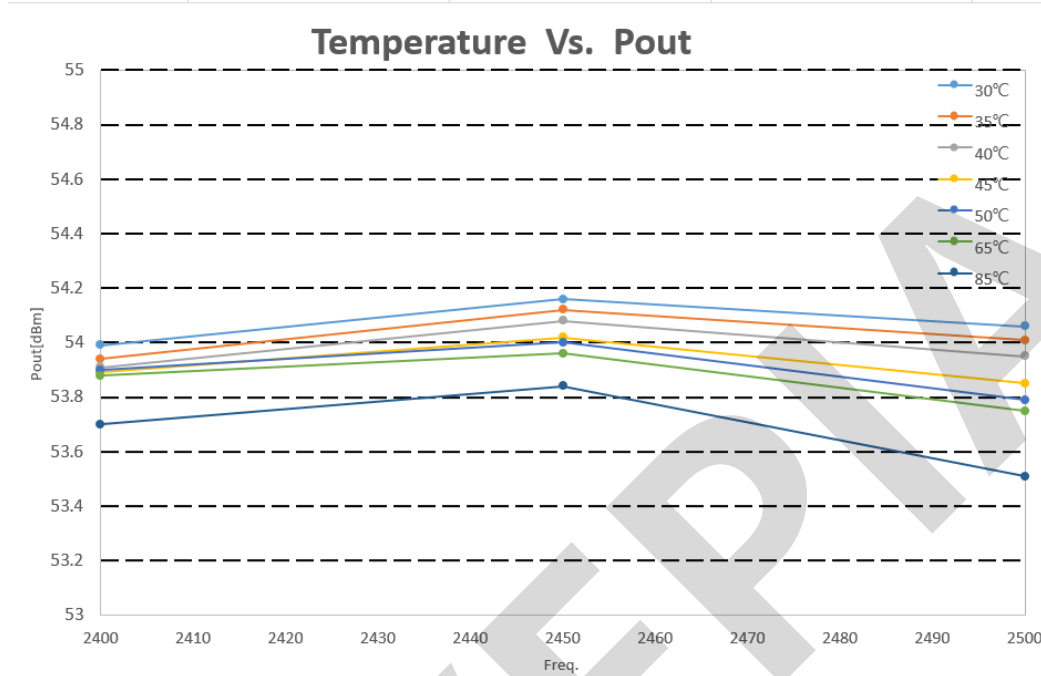
● Outline Drawing



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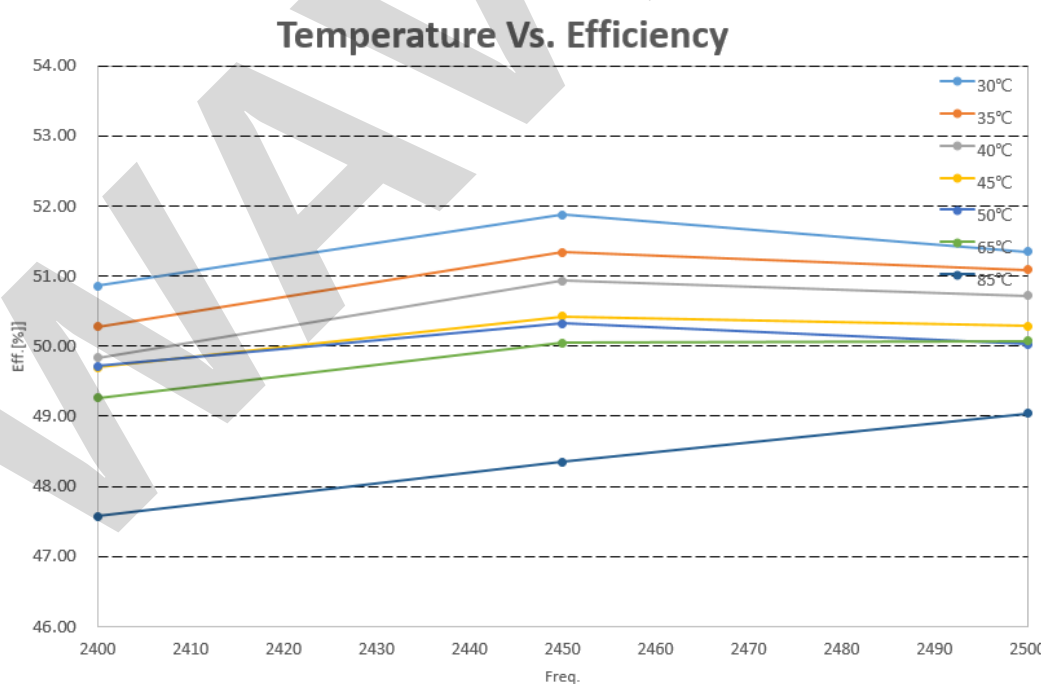
● **CW Signal Performance ($T_{SEN}=33\sim 85^{\circ}\text{C}$)**

- VDC=+32V, UART Control



● **Efficiency ($T_{SEN}=33\sim 85^{\circ}\text{C}$)**

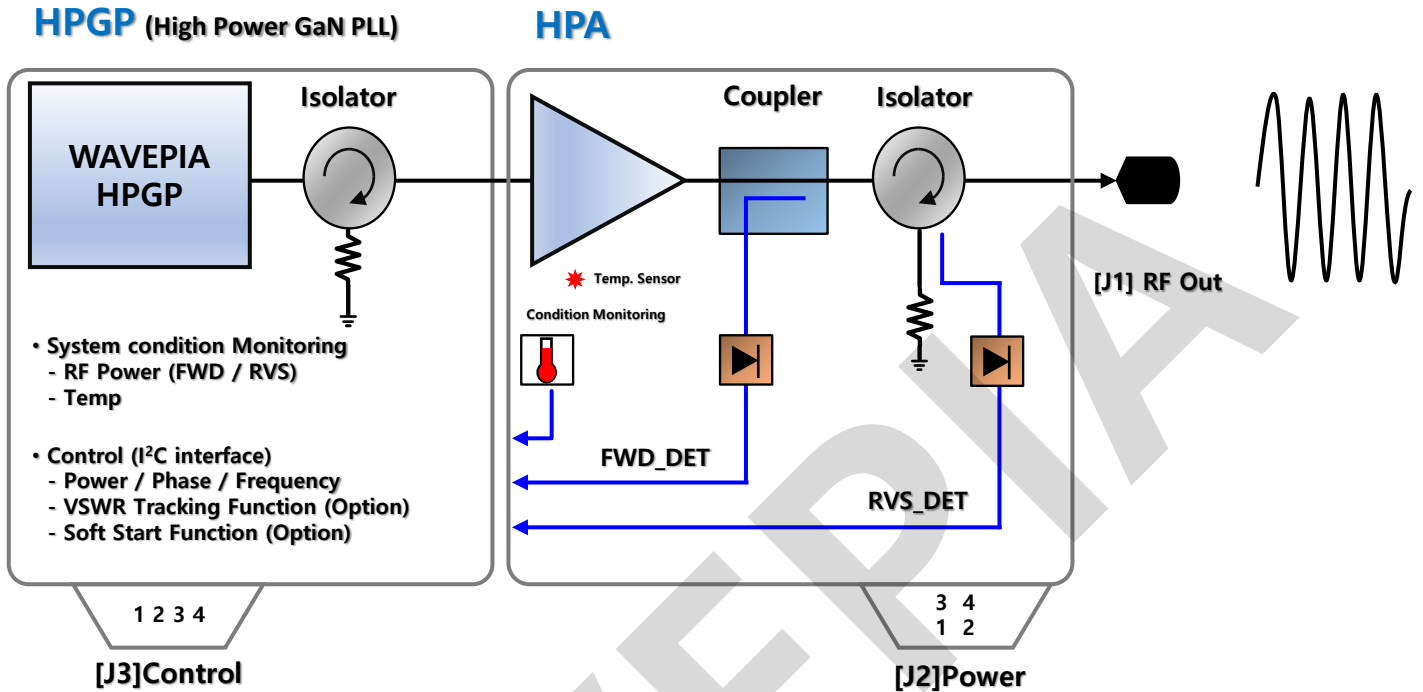
- VDC=+32V, UART Control



❖ Based on module internal temperature sensor



● Block Diagram



● Pin Description

| Port name | Connector | # of Pin | Description | |
|-------------------------|----------------------------|----------|-------------|--------------|
| [J1] RF OUT | N-TYPE(F) | 1 | 1 | RF OUT |
| [J2] Power | Molex 4Pin (76822-0004) | 4 | 1 | GND |
| | | | 2 | GND |
| | | | 3 | +32V |
| | | | 4 | +32V |
| [J3] I/O Port (UART) | Molex 4Pin (22-03-5045) | 4 | 1 | Tx |
| | | | 2 | Rx |
| | | | 3 | GND |
| | | | 4 | CLK (option) |