WPG24S25500

ISM Band RF Generator Module

● Product Features

- 2.4GHz ~ 2.5GHz (ISM band)
- Above 55% efficiency at CW 400W
- 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℃, 50Ω System

Parameter	Symbol	MIN	TYP	MAX	Units
Operating Frequency	F_O	2400	-	2500	MHz
Bandwidth	-	-	100	-	MHz
CW Output Power	P_O	-	56	-	dBm
Output Power Control	-	100	-	400	W
Gain Flatness	G_F	-	-	1	dB
Operating Voltage	V_O	-	32±0.3	-	V
Current consumption @ 56dBm	-	-	≤23.5	-	A
Efficiency @ 56dBm	Eff	-	≥55	-	%

● 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	℃
Storage Temperature	T_{STG}	-40	-	105	℃
Relative humidity (Non-condensing)	RH	0	-	95	%

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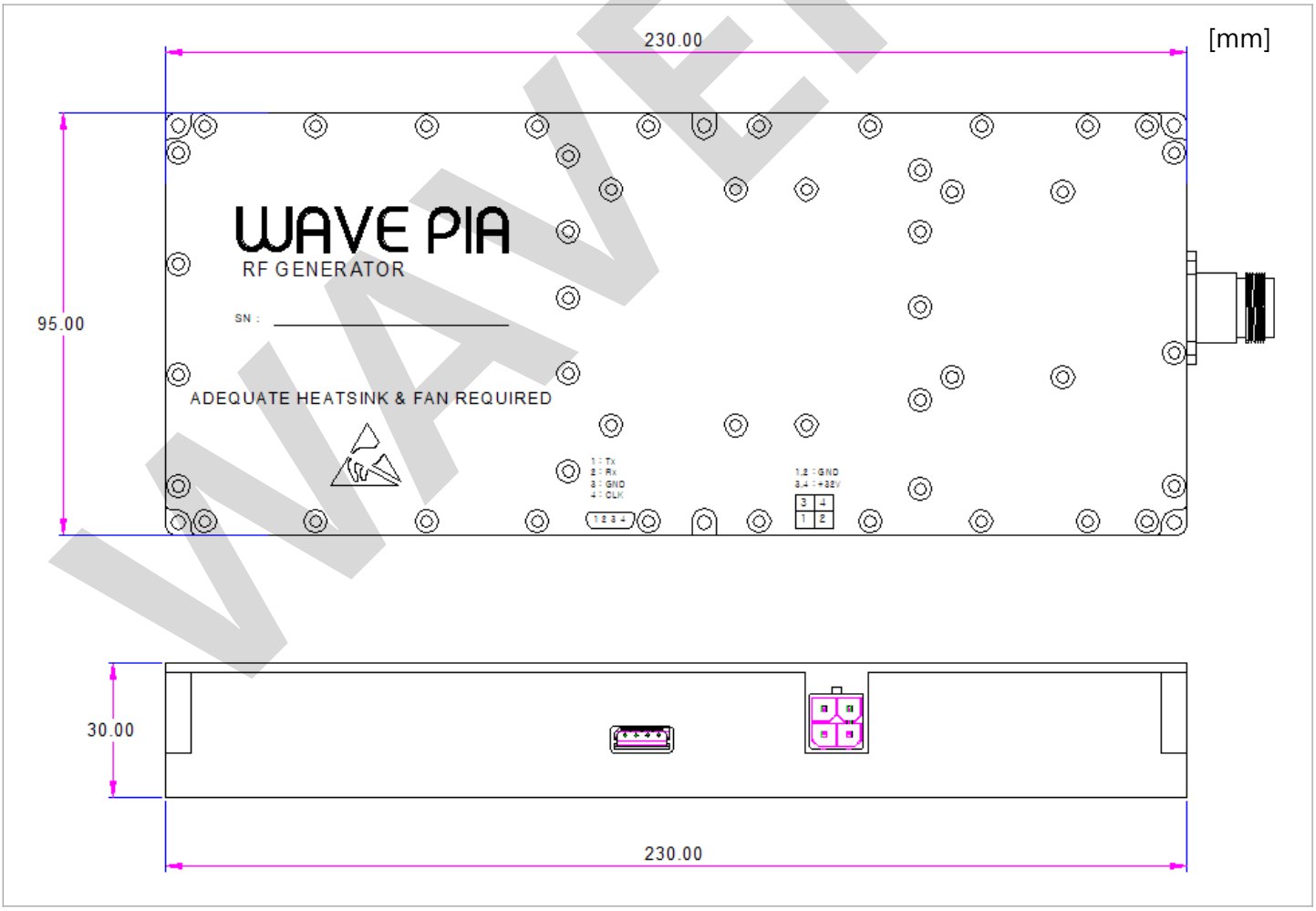
● Mechanical Specifications

Parameter	Units	VALUE
Dimensions(L x W x H)	mm	230 x 95 x 30
Weight	Kg	≤ 1.2
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

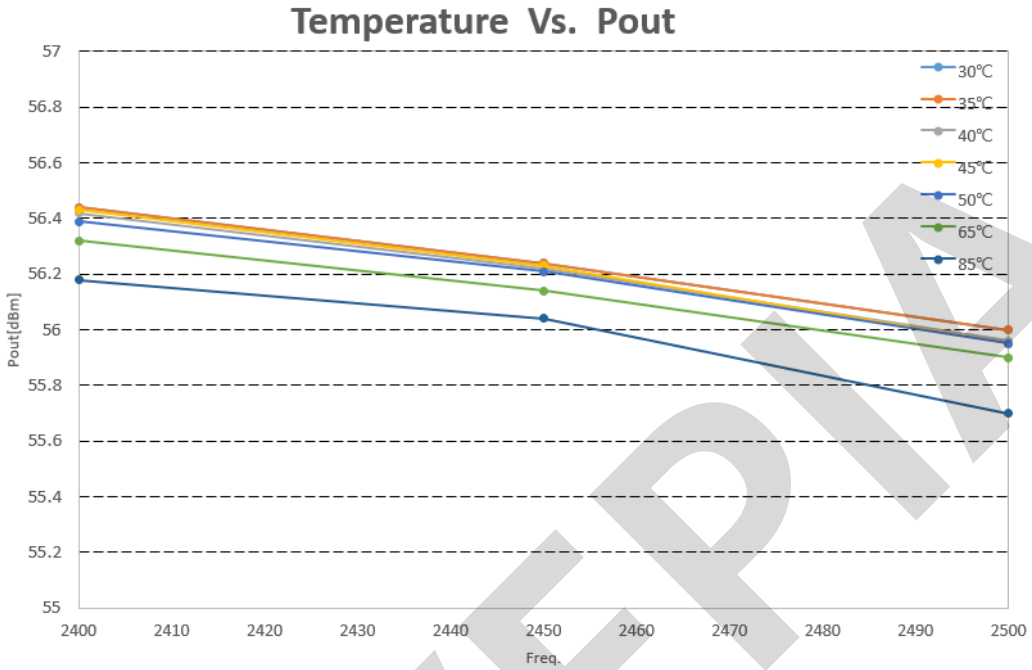
● Outline Drawing



* Mechanical specifications can be customized upon customer requests

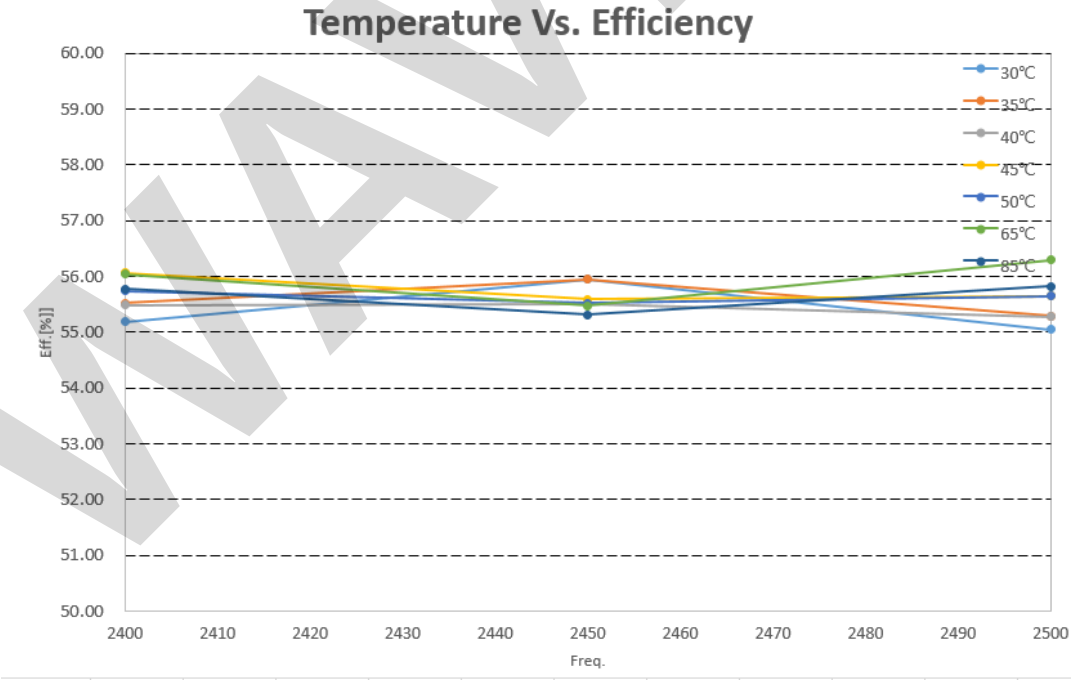
- **CW Signal Performance (T_{SEN}=33~85℃)**

  - VDC=+32V, UART Control



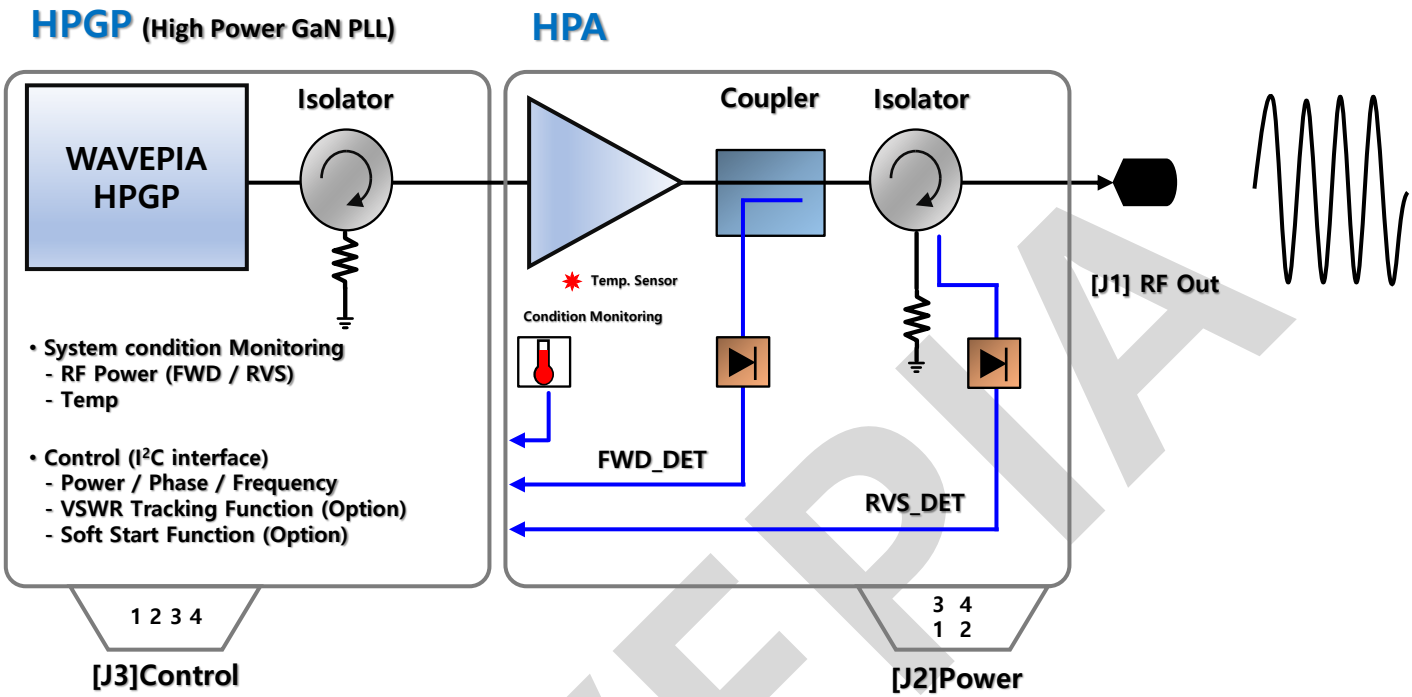
- **Efficiency (T_{SEN}=33~85℃)**

  - 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)