

**Product Features**

- 1295~1305 MHz
- 2000W CW Peak Power @ 50V
- 65% Drain Efficiency @ 50V
- Low Cost, Light Weight, Compact
- Using GaN-on-SiC HEMT Transistor
- Excellent Thermal Stability and Ruggedness
- Externally 50Ω Matched

**Applications**

- Medical
- High Power Industry
- Microwave CVD Reactor
- Plasma Generator
- Food Science
- MW Heating and Drying



**Description**

RIM132K0-20 using GaN-on-SiC transistors is designed for industrial, scientific, medical (ISM) and plasma applications at 1.3GHz. RIM132K0-20 is the world's highest power and efficiency SSPA with affordable price. This amplifier is suitable for use in CW, ISM applications. This high efficiency rugged device is targeted to replace industrial magnetrons and other vacuum tubes which are currently applying into high power industrial applications, artificial diamond manufacturing, semiconductor equipments, and plasma systems.

**Electrical Specifications @  $V_{DS}=50V, T=25^{\circ}C, 50\Omega$  System**

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	1295	-	1305	F <sub>O</sub>
Operating Bandwidth	MHz	-	10	-	OBW
CW Output Power	W	-	2000	-	P <sub>O</sub>
Efficiency	%	-	65	-	Eff
Input Power	dBm	-	10	-	P <sub>I</sub>
Power Gain @ Peak Power	dB	-	53	-	G <sub>P</sub>
Gain Flatness	dB	-	1	2.0	ΔG <sub>P</sub>
In/Out Return Loss	dB	-	-	-15	S <sub>11</sub>
Operating Voltage	V	-	50	-	V <sub>dc</sub>
Operating Case Temperature		-	-	60	T <sub>c</sub>
DC & Controls Connector	3W3	A1	50V ±1%		-
		A2	GND		-
		A3	50V ±1%		-
	D-SUB 2Array 15pin	1	Current Monitor		-
		2	Temp Monitor		-
		3	Forward Power Monitor		-
		4	Reflect Power Monitor		-
		5	Input Power Monitor		-
		6	+50VDC Voltage Monitor		-
		7	RF En/Dis : Enable(Low), Disable(High or Open)		-
		8	Gain Control		-
		9,14~15	Reseved		-
		10~,11	+5.6V±5%		-
		12~13	GND		-

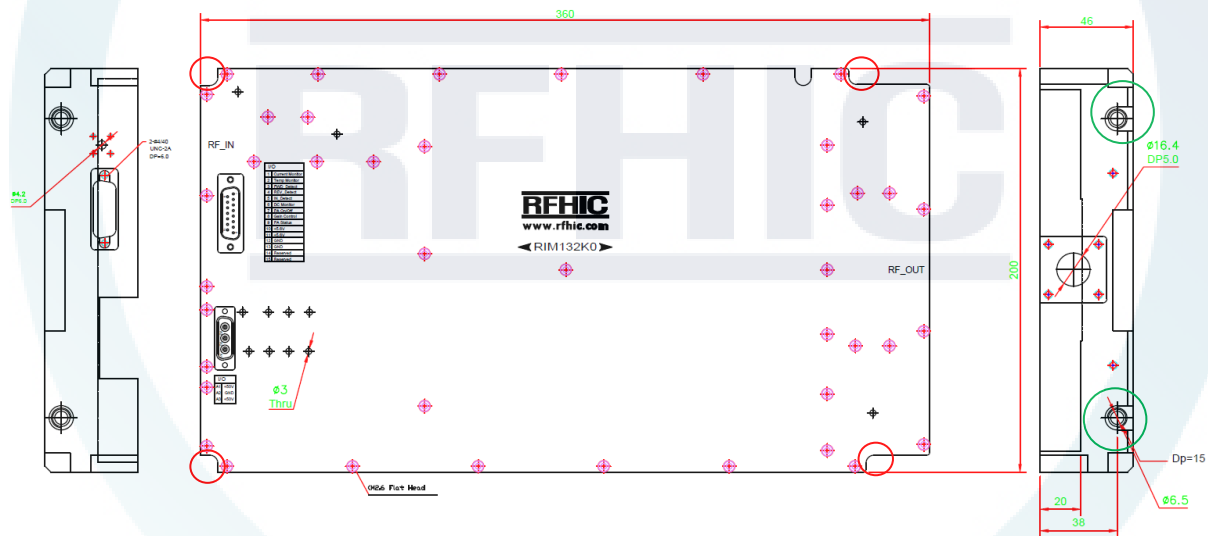
**Mechanical Specifications**

PARAMETER	UNIT	VALUE
Dimensions (L x W x H)	mm	360 x 200 x 46
Weight	Kg	6.0 typ
RF Input Connectors	-	SMA, Female
RF Output Connectors	-	7/16 DIN, Female
DC & I/O Connector	-	3W3 & D-sub 2array 15pin
Cooling	-	Water cooling ( 20°C typ, 2 liter per minute, 0.2 bar)

**Note**

Water cooling condition may be subject to change.

**Mechanical drawing**



- : Mount Hole
- Water Inlet/Outlet

**Revision History**

Part Number	Release Date	Version	Description	Data Sheet Status
RIM132K0-20	Apr, 2020	0.1	Initial release of datasheet	Preliminary



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