

Preliminary
GaN Power Amp Pallet
RWP2040150-52



Product Features

- Frequency from 2000 ~ 4000MHz
- Class AB GaN design
- 50 Ohm Input/Output impedance
- Small size and Light weight
- High reliability and Ruggedness

Applications

- Wide band
- S-Band
- Jammer



Description

The RWP2040150-52 is designed for general purpose. Operating frequency range is from 2000~4000MHz. Gallium Nitride on SiC Technology is used and attached on a copper sub carrier. Improved thermal handling by patented technology.

Electrical Specifications @ $V_{DC}=36V$, $T_C=40^{\circ}C$, 50 Ω System

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	2000	-	4000	F _O
Operating Bandwidth	MHz	-	2000	-	BW
Peak Output Power @CW Signal	W	120	150	-	P _{SAT}
Input Power	dBm	-	0	-	P _{IN}
Maximum Input Power @Without Damage	dBm	-	-	7	P _{IN, MAX}
Power Gain @Input Power 0dBm	dB	51	52	-	G _P
Gain Flatness @Input Power 0dBm	dB	-	-	±1.0	ΔG _P
Small Signal Gain @ Input Power -20dBm	dB	-	62	-	G _S
Efficiency	%	-	35	-	E _{FF}
Harmonics 1 to N @Output Power 100W	dBc	10	-	-	H _N
Spurious Level	dBc	60	-	-	Spur
Input VSWR	-	-	-	2:1	VSWR
Operating Voltage	V	-	36	-	V _{DC}
Current Consumption @Output Power 100W	A	-	13	-	I _{DC}

Environmental Specifications

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PARAMETER	UNIT	RATING	SYMBOL
Operating Case Temperature	°C	-30 ~ 80	T _C
Storage Temperature	°C	-40 ~ 105	T _{STG}
Relative Humidity(Non-condensing)	RH	95	%

Absolute Maximum Ratings

PARAMETER	UNIT	RATING	SYMBOL
RF Input Power	dBm	+7	P _{IN}
Supply Voltage	V	40	V _{DC}
Load Mismatch Value	-	3:1 @ any angle & continuous amplitude	-

Operating Voltages

PARAMETER	UNIT	NOMINAL VOLTAGE	VOLTAGE ACCURACY	SYMBOL
Operating Voltage	V	36	± 2%	V _{DC}
HPA Enable Voltage	V	Low(0V) : PA OFF, High(5V) : PA ON		
Current Monitor Voltage	V	Output Voltage 1V@10A(0.1V/1A)		
Temp Monitor Voltage	V	Output Voltage 0.75V@25°C (1°C/0.01V)		

Mechanical Specifications

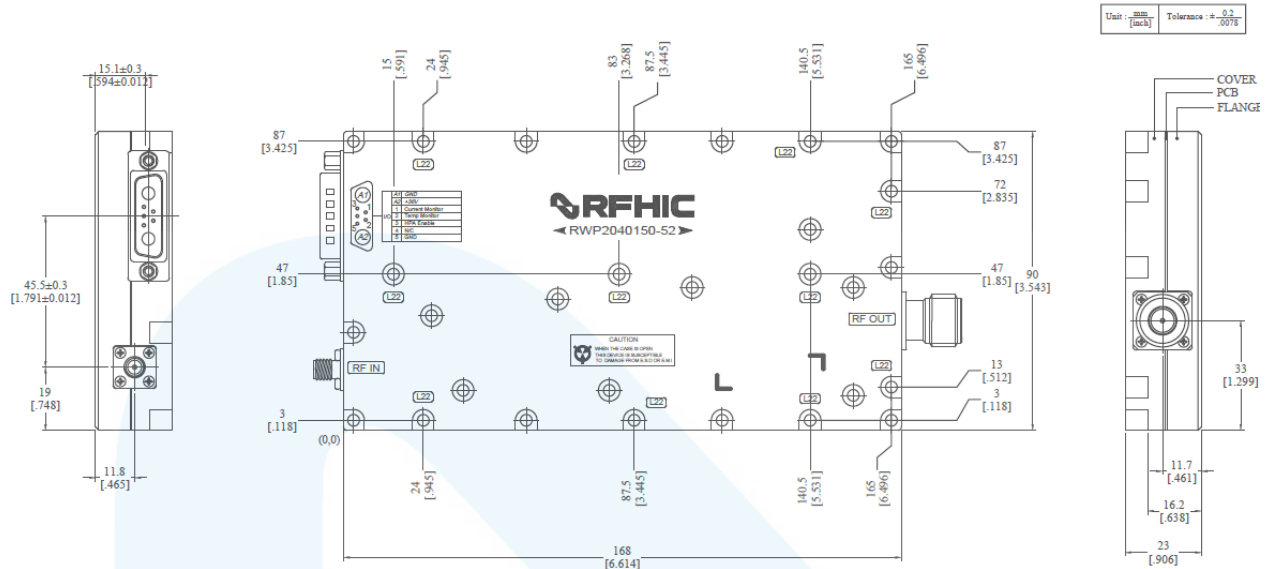
PARAMETER	UNIT	TYP
Mass	kg	0.712
Dimension	mm	168 x 90 x 23 (Without Connectors)
RF Connector	-	SMA Female : RF Input
		N Female : RF Output
DC Connector	-	D-Sub 7-Pin(7W2), Male : Supply
Cooling		External Heat-sink Required

Outline Drawing

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Pin Description

Pin No	Description	Pin No	Description
A1	GND	1	Current Monitor
A2	V _{DS} (+36V)	2	Temp Monitor
		3	HPA Enable
		4	N/C
		5	GND

Revision History

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Part Number	Release Date	Version	Modification	Data Sheet Status
RWP2040150-52	2026.08.04	0.1	-	Preliminary



Certification

This product is manufactured by a company that is certified for the AS9100D quality management system.

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