

Product Features

- Frequency from 9300 ~ 9500MHz
- Class AB GaN design
- 50 Ohm Input/Output impedance
- Small size and Light weight
- High reliability and Ruggedness

Applications

- Radar System
- Satellite System



Description

The RRP9395080-50 is designed for Radar system application frequencies from 9300~9500MHz.

This pallet uses GaN HEMT technology which performs high breakdown voltage and high efficiency.

Gallium Nitride on SiC Technology is used and attached on a copper sub carrier. Improved thermal handling by patented technology.

Electrical Specifications @ $V_{DC}=40V$, $V_{Sub}=5.6V$, $T_C=40^{\circ}C$, 50 Ω System

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	9300	-	9500	F _O
Operating Bandwidth	MHz	-	200	-	BW
Peak Output Power @CW Signal	W	80	90	-	P _{SAT}
Input Power	dBm	-	0	-	P _{IN}
Maximum Input Power @Without Damage	dBm	-	-	5	P _{IN, MAX}
Power Gain @Input Power 0dBm	dB	-	50	-	G _P
Gain Flatness @Input Power 0dBm	dB	-	-	±0.5	ΔG _P
Efficiency	%	20	25	-	E _{FF}
Harmonics 1 to N @Output Power 80W	dBc	40	-	-	H _N
Spurious Level	dBc	60	-	-	Spur
Input VSWR	dB	-	-	2:1	VSWR
Output VSWR	dB	-	-	2:1	VSWR
Operating Voltage	V	-	40	-	V _{DC}
Current Consumption @Output Power 90W	A	-	9.0	-	I _{DC}

Environmental Specifications

PARAMETER	UNIT	RATING	SYMBOL
Operating Case Temperature	°C	-20 ~ 75	T _C
Storage Temperature	°C	-40 ~ 105	T _{STG}
Relative Humidity(Non-condensing)	RH	95	%

Operating Voltages

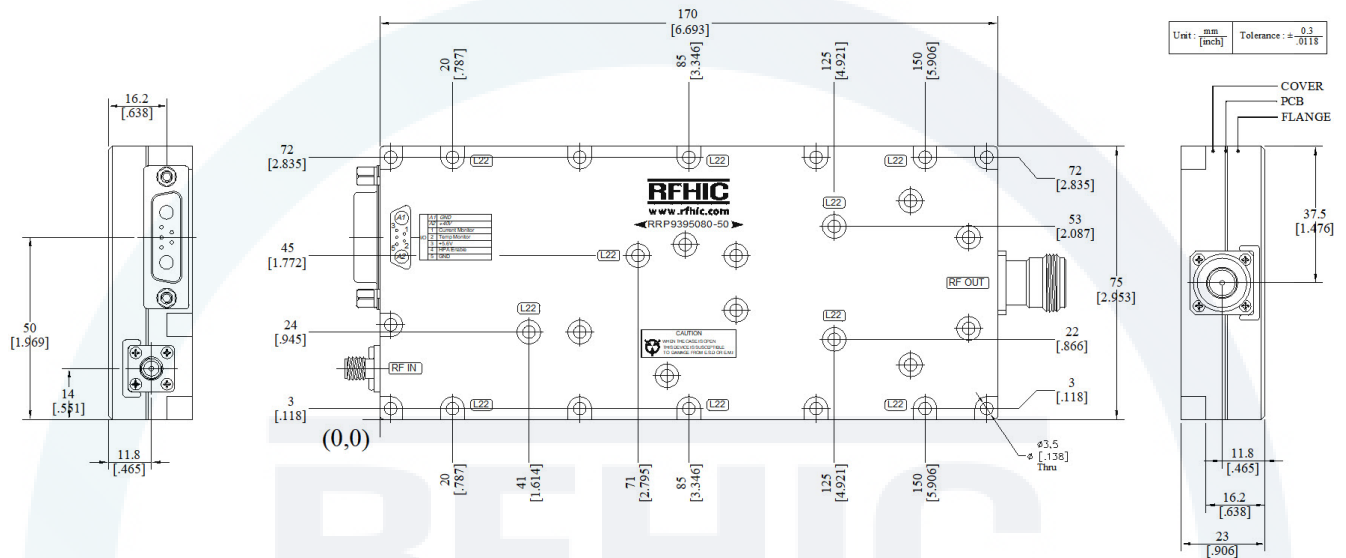
PARAMETER	UNIT	NOMINAL VOLTAGE	VOLTAGE ACCURACY	SYMBOL
Operating Voltage	V	40	± 2%	V _{DC}
Operating Sub Voltage	V	5.6	± 2%	V _{Sub}
HPA Enable	V	Low(0V) : PA OFF, High(5V) : PA ON		
Current Monitor	V	Output Voltage 1V@10A(0.1V/1A)		
Temp Monitor	V	Output Voltage 0.75V@25°C (1°C/0.01V)		

Mechanical Specifications

PARAMETER	UNIT	TYP
Mass	kg	0.6(TBD)
Dimension	mm	170 x 75 x 23 (Without Connectors)
RF Connector	-	SMA Female : RF Input
		N-type Female : RF Output
DC Connector	-	7W2 Combo Connector
Cooling		External Heat-sink Required

Outline Drawing

* Unit: mm[inch] | Tolerance: ± 0.3 [.0118]



Pin Description

Supply : 7W2 Combo Connector			
Pin No	Description	Pin No	Description
A1	GND	3	+5.6V
A2	+40V	4	HPA Enable
1	Current Monitor	5	GND
2	Temp Monitor		

Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
RRP9395080-50	March, 2021	0.1	Initial release of datasheet	Preliminary
RRP9395080-50	April, 2021	0.2	Modified Electrical and Mechanical Specificaions	Preliminary



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