Wideband Amp Pallet

RWP4060100-50

Product Features

- Frequency from 4000 ~ 6000MHz
- Class AB GaN design
- Instantaneous wide bandwidth
- 50 Ohm Input/Output impedance
- Small size and Light weight
- High reliability and Ruggedness



Description

The RWP4060100-50 is designed for general purpose. Operating frequency range is from 4000~6000MHz.
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°C, 50Ω System

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	4000	-	6000	F_O
Operating Bandwidth	MHz	-	2000	-	BW
Peak Output Power @CW Signal	W	100	110	-	P_{SAT}
Input Power	dBm	-	0	-	P_{IN}
Maximum Input Power @Without Damage	dBm	-	-	7	$P_{IN, MAX}$
Power Gain @Input Power 0dBm	dB	50	-	-	G_P
Gain Flatness @Input Power 0dBm	dB	-	-	±1.5	ΔG_P
Small Signal Gain @ Input Power -20dBm	dB	58	62	-	G_S
Efficiency	%	-	25	-	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}
Quiescent Current	A	-	4.5	6	I_{DQ}
Current Consumption @Output Power 100W	A	-	10.5	13	I_{DC}

Environmental Specifications

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 angel & 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 2V@10A(0.2V/1A)		
Temp Monitor Voltage	V	Output Voltage 0.75V@25℃ (1℃/0.01V)		

* HPA Enable : 500ms Delay

HPA Operating Sequence

HPA Turn On	HPA Turn Off
1. Pin A2 : +36V On	1. RF Off
2. Pin 3 : HPA Enable On	2. Pin 3 : HPA Enable Off
3. RF On	3. Pin A2 : +36V Off

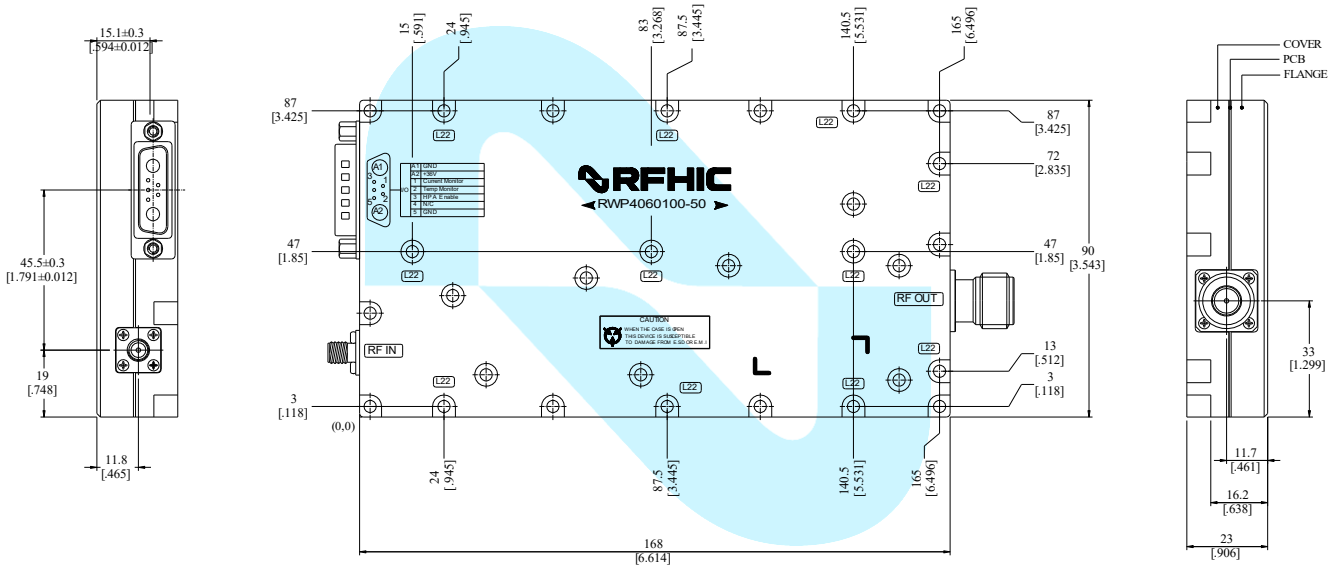
* It is recommended to follow the sequence of bias application as in the above table. However, there is an internal protection circuit that prevents the possible damages that may be occurred from a different sequence of bias applications.

Mechanical Specifications

PARAMETER	UNIT	TYP
Mass	kg	0.72(TBD)
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

* Unit: mm[inch] | Tolerance ±0.3[.012]



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

Part Number	Release Date	Version	Modification	Data Sheet Status
RWP4060100-50	2026.05.21	0.1	-	Preliminary

Certification

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

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