

Preliminary Wideband Power Amplifier

RWP5872050-10



Product Features

- Frequency from 5800 to 7200 MHz
- Class AB GaN HEMT Design
- Typ. 50W C.W.
- 40% Efficiency at CW 100W
- 50 ohm Input / Output impedance matched
- Pb Free / RoHS Standard

Applications

- Radar-Systems
- Jamming-Systems
- Drones/UAVs Systems
- Satellite Communication



Description

RFHIC's GaN Power Amplifier Pallet is Flanged type product which includes all matching for the convenience of customers. RWP5872050-35 is wide band Amp used for up 5800 to 7200 MHz.

Electrical Specifications @ $V_{DD} = 32V$; $T_c = 45^\circ C$; $Z_s = Z_L = 50\Omega$

PARAMETER	UNIT	MIN	TYP	MAX	CONDITION
Frequency	MHz	5800		7200	-
Power Gain	dB	34	35		@ $P_{IN} = 12dBm$
Power Gain Flatness @ $P_{IN} 12dBm$	dB		± 0.5	± 1	@ $P_{IN} = 12dBm$
Input Power (P_{IN})	dBm		12	15	@ $P_{out} = 50W$
Output Power (P_{SAT})	W	46	47		-
Input / Output Return Loss	dB	-7	-10		S_{11} / S_{22}
Efficiency	%	40	44.8		@ $P_{out} = 50W$
Supply Voltage	V		32		
Quiescent Current (I_{DQ})	A		0.3	0.5	$V_{DD} = 32.0V$
Current Consumption (I_{DD})			3.5	4	@ $P_{out} = 50W$
Spurious Signals	dBc		-70		

NOTE

*Measured for the $P_{out} = 50W$, $T = 45^\circ C$, $V_{DD} = +32V$, 50Ω system

I/O Connector (YDAW200-12)

Pin NO.	UNIT	RATING
1, 2, 3, 4	V	VDD +32V
5, 6, 7, 8		GND
9	TTL	VSWR Alarm @ VSWR $\geq 2.5 :1$
10	V	0-10V dc Analog
11	V	0 ~ 3V (LM50CIM)
12	TTL	On : TTL "Low"(Enable) Off : TTL "High"

Absolute Maximum Ratings

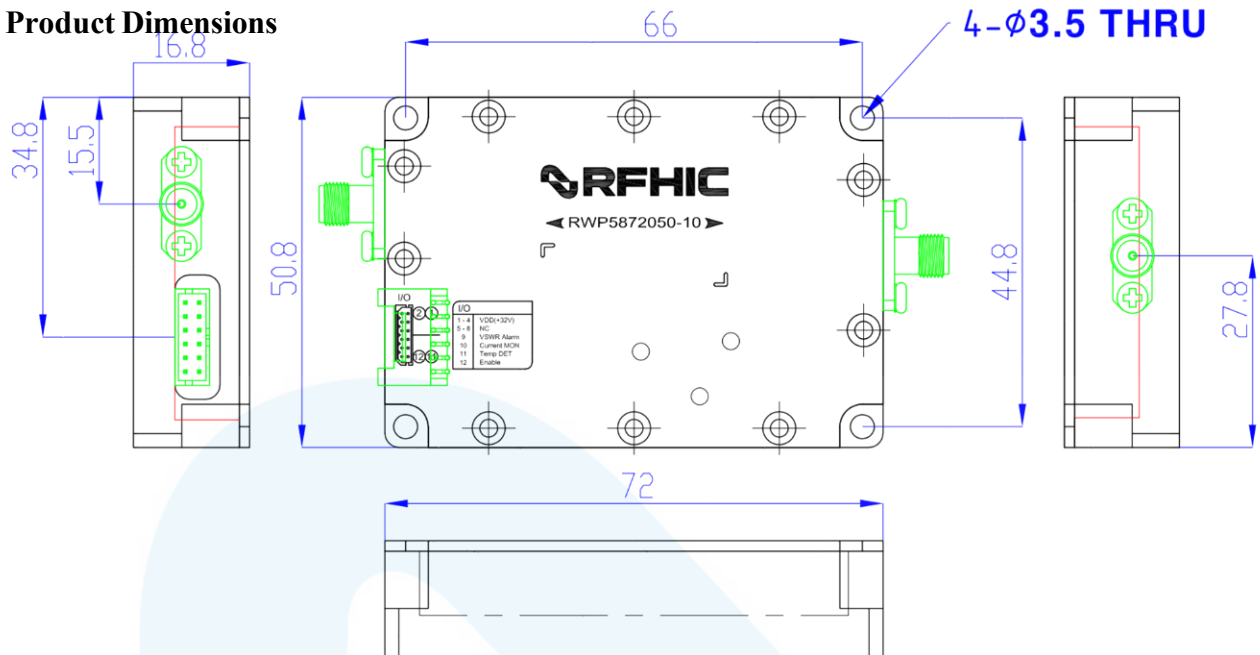
PARAMETER	UNIT	RATING
Input RF Power	dBm	0
Supply Voltage	V	40
Load Mismatch Value	-	3:1 @all load phase

*Input Signal Condition : CW 1-Tone

Environmental Characteristics

PARAMETER	UNIT	MIN	TYP	MAX	Condition
Operating Flange Temperature	°C	-30	-	+60	
Storage Temperature	°C	-40	-	+85	

Product Dimensions



* Unit: mm[inch] | Tolerance: ± 0.2 [.008]

Mechanical Specification

PARAMETER	Units	Value
Dimensions	mm	72 x 150.8 x 16.8
RF Input Connector		SMA(Female)
RF Output Connector		SMA(Female)
I/O Connector		YDMAW200-12
Cooling		External Heat-Sink Required

NOTE

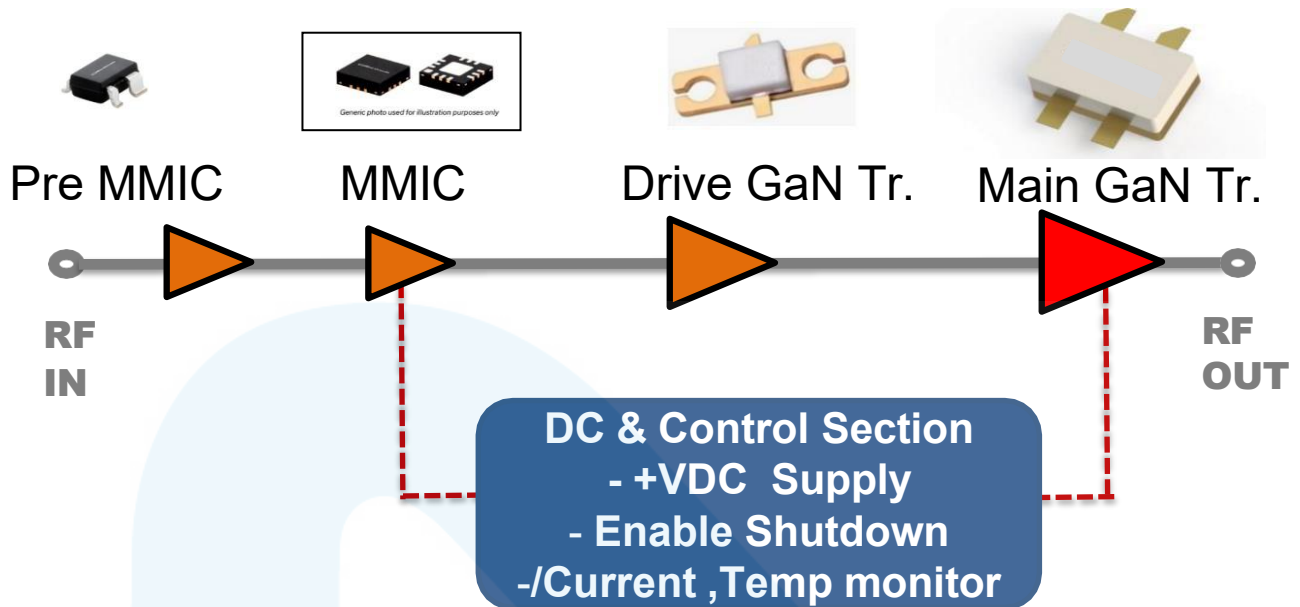
1. Connector position and module mount holes may be subjected change.

Preliminary

Wideband Power Amplifier RWP5872050-10



Block Diagram



Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
RWP5872050-10	03.25.2026	0.1	Initial Release	



Certification

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

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