Preliminary CW Power Amp Pallet

RRP5758065-40



Product Features

- Frequency from $5725 \sim 5850 MHz$
- · Class AB GaN design
- 50 Ohm Input/Output impedance
- Small size and Light weight
- High reliability and Ruggedness

Applications

- Radar system
- Drone system
- Jamming system



Description

The RRP5758065-40 is designed for Jamming system application frequencies from 5725~5850MHz. This Pallet uses GaN HEMT technology which performs high breakdown voltage, and high efficiency.

Electrical Specifications @ V_{DC} =32V, T_C =45°C, 50Ω System

ARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	5725	-	5850	fo
Operating Bandwidth	MHz	-	125	-	BW
Output CW Power	W	65	80	-	Po
Input CW Power	dBm	-	8	-	PI
Power Gain	dB	-	41	-	G _P
Gain Flatness	dB	-	-	±0.5	ΔG_{P}
Efficiency	%	35	40	-	Eff
Harmonics 1 to N	dBc	25	-	-	H _N
Spurious Level	dBc	60	-	-	Spur
Input VSWR	dB	-	-	2:1	VSWR
Output VSWR	dB	-	-	2:1	VSWR
Operating Voltage	V	-	32	-	V_{DC}
Current Consumption	A	-	6	-	I_{DC}
Current Monitor	V	-	0.6	-	

^{*} Custom design available

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Environmental Specifications

PARAMETER	UNIT	RATING	SYMBOL
Operating Case Temperature	°C	<i>-</i> 20 ∼ 75	Tc
Storage Temperature	°C	-40 ∼ 105	Tstg
Relative Humidity(Non-condensing)	RH	95	%

Operating Voltages

PARAMETER	UNIT	NOMINAL VOLTAGE	VOLTAGE ACCURACY	SYMBOL
Operating Voltage (Main)	V	32	± 2%	V_{DC}
Operating Voltage (Sub)	V	5	± 2%	$V_{ m Sub}$
HPA Enable Voltage	V	Low(0V): PA OFF, High(5V): PA ON		
Current Monitor Voltage	V	Output Voltage 1V@10A(0.1V/1A)		-
Temperature Monitor Voltage	V	Output Voltage 0.75V	-	

Mechanical Specifications

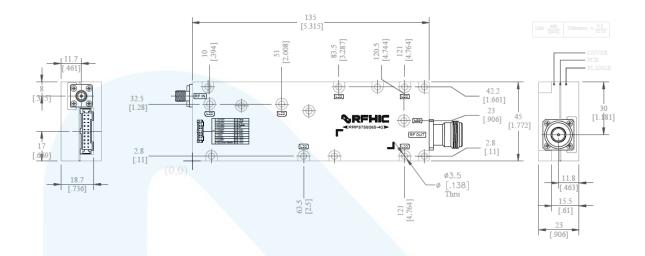
PARAMETER	UNIT	ТҮР	
Weight	kg	0.4 (TBD)	
Dimension (L x W x H)	mm	135 x 45 x 23 (excludes connectors)	
RF Connector	-	SMA Female : RF Input	
		N-type Female : RF Output	
DC Connector	-	T2M-110-01-L-D-RA-WT, Male: Supply	
Cooling		External Heat-sink Required (not supplied)	

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Outline Drawing

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



Pin Description

Pin No	Description	Pin No	Description
1	+32V	11	Temp Monitor
2	+32V	12	GND
3	+32V	13	HPA Enable
4	+32V	14	N/C
5	GND	15	GND
6	GND	16	GND
7	N/C	17	GND
8	+5V	18	+32V
9	GND	19	+32V
10	Current Monitor	20	+32V

HPA Operating Sequence

HPA Turn On	HPA Turn Off
1. Pin (1,2,3,4,18,19,20): +32V(V _{DC}) On	1. RF Off
2. Pin 8:+5V(V _{Sub}) On	2. Pin 3: HPA Enable(+5V) Off
3. Pin 3 : HPA Enable(+5V) On	3. Pin 8: +5V(V _{Sub}) Off
4. RF On	4. Pin (1,2,3,4,18,19,20): +32V(V _{DC}) 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.

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Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
RRP5758065-40	July, 2024	0.1	-	Preliminary
RRP5758065-40	September, 2025	0.2	-	Preliminary





Certification

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

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