

Broadband High Power Amplifier

Product Name : RCA2538H37B0, Code Name :

Doc. Name : General Spec.

RoHs
compliant

General Specification for RCA2538H37B0

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Revision history

Revision Code	Author	Date	Engineering Change Order
A	Charlie CHO	19.Mar.2019	- Draft
B	Charlie CHO	19.Mar.2019	- Updates the mechanical drawing.

Created	Printed	Document Number	Revision	Manufacturer
2019/10/15	2020/3/9		B	RFcore co.,Ltd
File : RCA2538H37B0 General Spec.docx				

The Specifications is subject to change before finalization

Customer Service: Tel. 82-31-708-7575

Email: sales@rfcore.com

<http://www.rfcore.com>

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ELECTRICAL SPECIFICATIONS		@ 50 Ohms load, 28 Vdc, Tc = 35 °C
Parameter	Specification	Remark
Frequency Range	2500 ~ 3800 MHz	
Saturated Output Power	5 W min.	@ CW, 50 ohms load
Small Signal Gain	40 dB min.	Input Level = - 15 dBm
Small Signal Gain Flatness	Peak to Peak 5 dB	Input Level = - 15 dBm
Large Signal Gain	37 dB min.	Input Level = 0 dBm
Large Signal Gain Flatness	Peak to Peak 3 dB	Input Level = 0 dBm
Maximum Input Power for no damage	Short term : 10 dBm (20msec) Long term : 5 dBm	@ CW, 50 ohms load
Input VSWR	Less than 2.0 : 1	
Maximum load VSWR for amplifier working	3.5 : 1	Works with degraded performance.
On/Off Switching Time	10 usec max.	
DC Input Voltage	28 ± 1 Vdc	
Quiescent Current (Idq)	0.5 A typ.	PA enable, RF OFF
Current Consumption (Idd)	1.2 A max.	@ Pout = 5W CW, 50 ohms load
RF Input Signal Format	CW	Please contact the manufacturer for other modulation types or multi carriers

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Interface Pin Description		
Connector	Description	Specification
I/O Interface(D-Sub 9Pin Male)	1. Enable(Active Low)	Internally pulled-up @ 5V with 10KΩ Does not exceed 25mA Enable : TTL Low or GND Disable : TTL High(3.3-5V) or OPEN
	2. Forward Power Monitor	Logarithmic Detector(±0.05V/dB)
	3. N.C	Do not connect
	4. Reflected Power Monitor	Logarithmic Detector(±0.05V/dB)
	5. Temperature Monitor	$V_T = 10(\text{mV}) * T_c(\text{°C}) + 500(\text{mV})$, $T_c = \text{Case Temperature} \pm 5\text{°C}$
	6. Vcc	
	7. Vcc	
	8. GND	
	9. GND	

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ENVIRONMENTAL SPECIFICATIONS		
Parameter	Specification	Remark
Operating Case Temperature	-30 ~ +75 °C	At a hottest point of the mechanical case of amplifier module
Storage Temperature	-40 ~ +85 °C	

MECHANICAL SPECIFICATIONS		
Parameter	Specification	Remark
Dimension	131 * 74 * 20 mm	w/o connectors
Weight	Less than 400 g	
RF Input Connector	SMA Female	
RF Output Connector	SMA Female	
I/O Interface Connector	D-Sub 9Pin Male	
Cooling	Adequate Heat-sink required	

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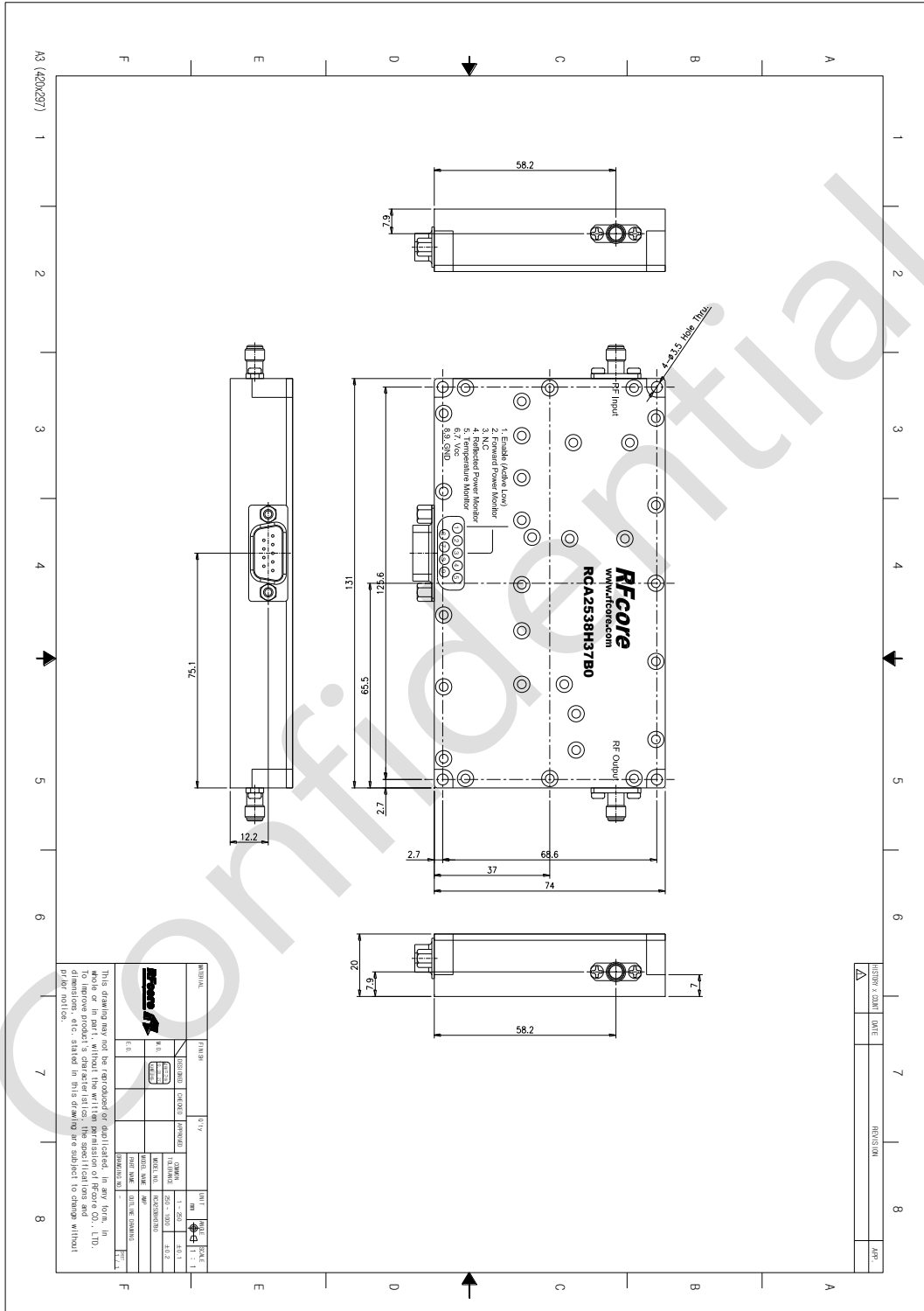
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MECHANICAL DRAWING



DRAWING REFERNECE: This is subject to change without notice.

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