

Broadband High Power Amplifier

Product Name : RCA3338H49D0, Code Name :

Doc. Name : Preliminary Short Spec.

<p align="center">Preliminary Short Specification for RCA3338H49D0</p>
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Revision history

Revision Code	Author	Date	Engineering Change Order
A	Charlie CHO	20.Nov.2019	- Draft

Created	Printed	Document Number	Revision	Manufacturer
2019/11/20	2020/3/9		A	Rfcore co.,Ltd
File : RCA3338H49D0 Short 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	3300 ~ 3800 MHz	
Saturated Output Power	80 W min.	@ CW, 50 ohms load condition
Power Gain	49 dB min.	Input = 0 dBm CW
Short Term Input Power for no damage on DC ON	8 dBm max. (20mSec)	@ CW, 50 ohms load condition
Long Term Input Power for no damage on DC ON	3 dBm max.	@ CW, 50 ohms load condition
Large Gain Flatness	Peak to Peak 3.0 dB	Input = 0 dBm CW
2 nd Harmonics (H2)	Less than - 40 dBc	@ Pout = 80 W CW
Spurious	Less than - 60 dBc	Non-Harmonics in band
Input VSWR	Less than 1.5 : 1	
Output VSWR	Less than 2 : 1	Non Isolator
Maximum handling load VSWR for amplifier survival	10 : 1	Within 20msec @ Pout of 80 W CW and Tc = 75 °C
Enable/Disable Switching Time	10 us max.	
DC Input Voltage	28 ± 1.0 Vdc	At 24V, Works with degraded performance.
Shutdown Current	0.35 A max	PA disable
Quiescent Current (Idq)	5 A max.	PA enable, RF OFF
Current Consumption (Idd)	12 A typ. 14 A max.	@ Pout = 80W CW, 50 ohms load condition
Input Signal Format	CW	

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INTERFACE PIN DESCRIPTION		
Connector	Description	Specification
Filtered 3W3P	A1. VCC	
	A2. GND	
	A3. N.C	Do not connect
Filtered D-Sub 9Pin Male	1. GND	
	2. N.C	Do not connect
	3. N.C	Do not connect
	4. Temperature Monitor	$V_t = 10(\text{mV}) \times T_c(^{\circ}\text{C}) + 500(\text{mV})$, $T_c = \text{Case Temperature} \pm 5^{\circ}\text{C}$
	5. Over Temp Alarm	Alarm : TTL High(5V) @ case temp. $85 \pm 5^{\circ}\text{C}$ Auto Recovery: TTL LOW(0V) @ case temp. $65 \pm 5^{\circ}\text{C}$
	6. Enable (Active low)	Internally pulled-up @ 5V with 10K Ω Does not exceed 25mA Enable : TTL Low or GND Disable : TTL High(3.3-5V) or OPEN
	7. N.C	Do not connect
	8. Forward Power Monitor	$V_f = 2.5\text{V} \pm 0.2\text{V}$ @ $P_{out} = 80\text{W CW}$ Log Slope : $\approx 0.05\text{V/dB}$
	9. Reflected Power Monitor	$V_r = 2.5\text{V} \pm 0.2\text{V}$ @ $P_{out} = 80\text{W CW}$ Log Slope : $\approx 0.05\text{V/dB}$

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ENVIRONMENTAL SPECIFICATIONS

Parameter	Specification	Remark
Operating Case Temperature (Tc)	-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	170 x 135 x 25 mm	w/o connectors
Weight	Less than 1.2 kg	
RF Input Connector	SMA Female	
RF Output Connector	SMA Female	
DC Connector	Filtered 3W3P	Capacitor value : 3000 pF
Control Connector	Filtered D-Sub 9Pin Male	Capacitor Value : 4700 pF
Cooling	Adequate Heat-sink required	

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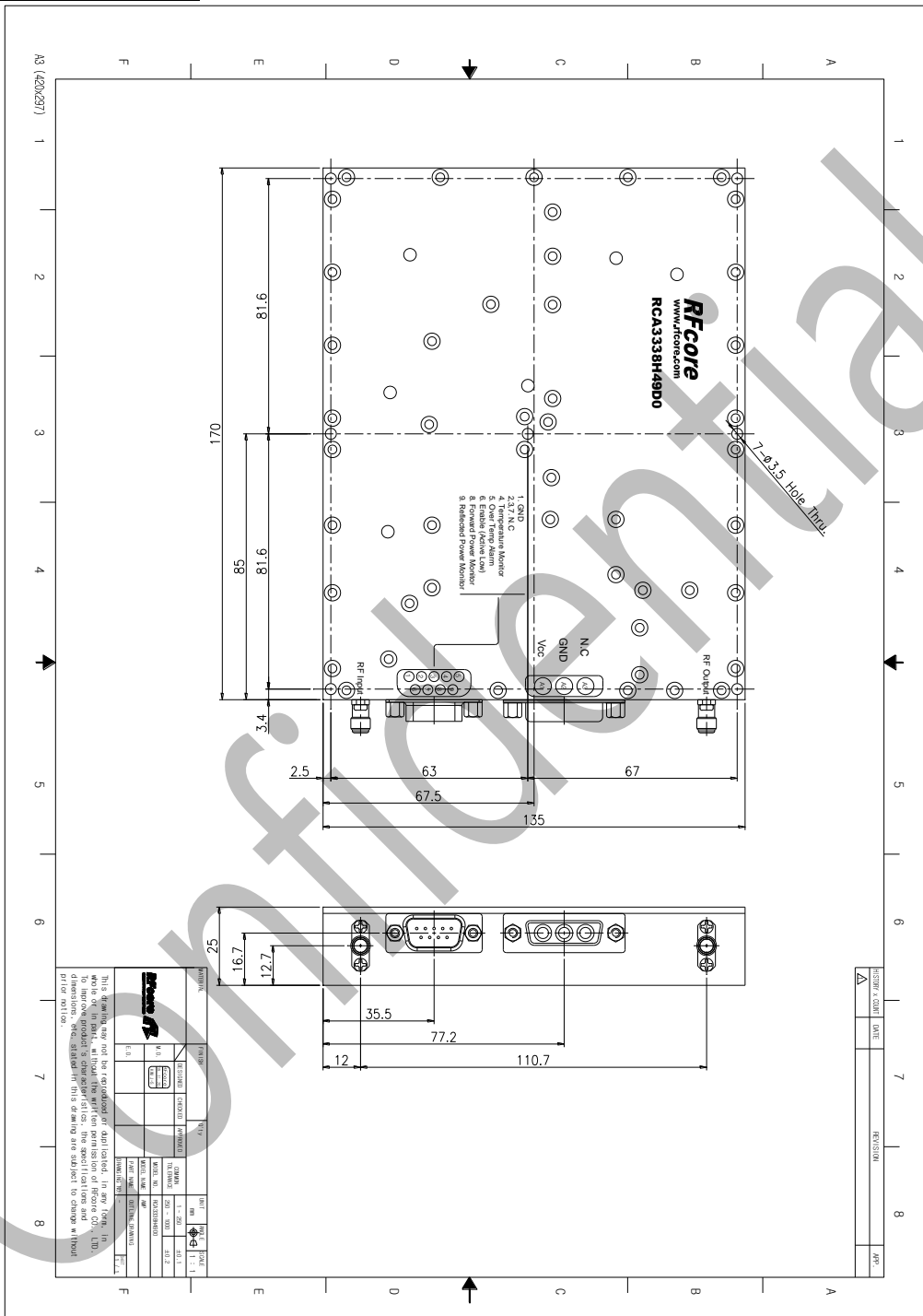
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MECHANICAL DRAWING



DRAWING REFERNECE: This is subject to change without notice.

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