

Broadband High Power Amplifier

Product Name : RCA002052H50L, Code Name :

Doc. Name : Preliminary Short Spec.

RoHs
compliant

Preliminary Short Specification for RCA002052H50L

1

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Created	Printed	Document Number	Revision	Manufacturer
2016/10/6	2017/1/12		A	RFcore co.,Ltd
File : RCA002052H50L Short Spec.docx				

The Specifications is subject to change before finalization

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

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ELECTRICAL SPECIFICATIONS		@ 50 Ohms load, 28 Vdc, Tc = 35 °C
Parameter	Specification	Remark
Frequency Range	20 ~ 520 MHz	
Saturated Output Power	100 W min. 120 W typ.	@ CW, 50 ohms load condition
Small Signal Gain	50 dB min.	Input Level = - 15 dBm
Small Signal Gain Flatness	Peak to Peak 5.0 dB	Input Level = - 15 dBm
Large Signal Gain Flatness	Peak to Peak 3.0 dB	Input Level = 0 dBm
Maximum Input Power for no damage	10 dBm	
Input VSWR	Less than 1.5 : 1	
Maximum load VSWR for amplifier survival	Infinite, all phase	
Harmonics(H2, H3)	-12 dBc typ.	@ Pout = 80 W CW, 50 ohms load condition
OIP3	+55 dBm typ.	@ 2 tones x 37 dBm/tone, tone spacing 100kHz
Spurious	Better than -60 dBc	
Noise Level at shutdown	-154 dBm/Hz max.	Input connector of PA should be terminated by 50 ohms
Enable/Disable Switching Time	5 usec max.	
DC Input Voltage	28V ± 0.5 Vdc	
Current Consumption at shutdown	0.3 A max.	@ Shutdown
Quiescent Current	2.0 A typ.	@ RF OFF
Current Consumption	10 A typ., 12 A max.	@ Pout = 100 W CW, 50 ohms load condition
RF Input Signal	CW / AM / FM	

2

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I/O INTERFACES PIN DESCRIPTION

Connector Type	Pin Name	Pin Description
EMI Feed Thru(3000pF)	VDD	
GND Pin	GND	
EMI Feed Thru(22pF)	Temperature Monitor	VT= 0.01 * Tc + 500(mV) , Tc is Case Temperature in degC ± 5°C Alarm & Shutdown : TTL High @ case temp. 85±5°C Auto Restart : TTL Low @case temp. 75±5°C
EMI Feed Thru(22pF)	Shutdown	Pulled-down with 10kohm Does not exceed 25mA Enable : TTL Low or Open Disable : TTL High(3.3-5V)

3

ENVIRONMENTAL SPECIFICATIONS

Parameter	Specification	Remark
Operating Case Temperature	-20 ~ +80 °C	At a hottest point of the mechanical case of amplifier module
Storage Temperature	-40 ~ +85 °C	

MECHANICAL SPECIFICATIONS

Parameter	Specification	Remark
Dimension	152.4 * 63.5 * 31.7 mm	w/o connectors
Weight	Less than 550 g	
RF Input Connector	SMA Female	
RF Output Connector	SMA Female	
I/O Interfaces Connector	Feed thru	22pF, 3000pF
Cooling	Adequate Heat-sink required	

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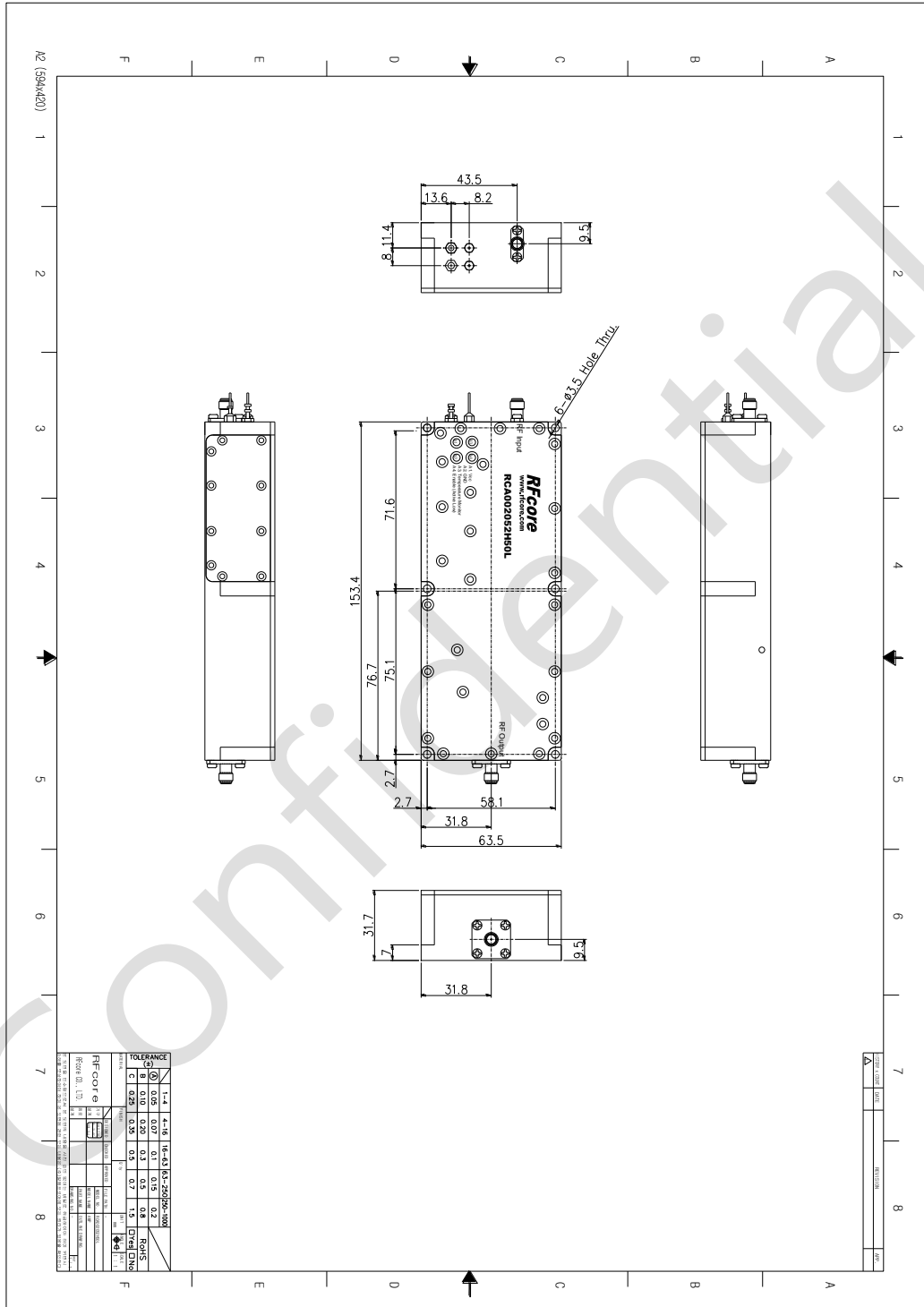
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MECHANICAL DRAWING



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