

Broadband High Power Amplifier

Product Name : RCA0527H50D1

Doc. Name : General Spec.

<p style="text-align: center;">General Specification for RCA0527H50D1</p>

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Created	Printed	Document Number	Revision	Manufacturer
2018/12/4	2018/12/5		B	RFcore co.,Ltd
File : RCA0527H50D1 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	500 ~ 2700 MHz	
Saturated Output Power @ 28 VDC	100W typ. , 80W min.	@ CW, 50 ohms load
Saturated Output Power @ 32 VDC	100W min.	@ CW, 50 ohms load
Small Signal Gain	50 dB min	Input = -15 dBm
Large Signal Gain	47 dB min	Input = 0 dBm
Gain Flatness	Peak to Peak 6.0 dB	Input = 0 dBm
Maximum Input Power for no damage	10 dBm	
Input VSWR	Less than 2 : 1	
Maximum load VSWR for amplifier working	3.5 : 1	Works with degraded performance.
Maximum load VSWR for amplifier for survival	10 : 1	@ Pout = 100 W CW, Tc = 75°C
Harmonics (H2 & H3) @ 28 VDC	-12 dBc typ.	@ Pout = 80 W CW, 50 ohms load condition
Harmonics (H2 & H3) @ 32 VDC	-12 dBc typ.	@ Pout = 100 W CW, 50 ohms load condition
On/Off Switching Time	1 usec typ. 2 usec max.	
DC Input Voltage	27 to 32 Vdc	
Current Consumption @ 28 VDC	14 A max. 10 A typ.	@ Pout = 80W CW, 50 ohms load
Current Consumption @ 32 VDC	15 A max. 11 A typ.	@ Pout = 100W CW, 50 ohms load
RF Input Signal Format	CW	

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Interface Pin Description		
Connector	Description	Specification
I/O Interface(7W2)	1. Enable (Active low)	Pulled-up @ 5V with 10kohm
	2. Forward Power Monitor	Logarithmic Detector($\approx 0.05V/dB$)
	3. N.C	Do not connect
	4. Reflected Power Monitor	Logarithmic Detector($\approx 0.05V/dB$)
	5. Temperature Monitor	$VT = 10(mV) * Tc(^{\circ}C) + 500(mV)$, $Tc = \text{Case Temperature} \pm 5^{\circ}C$
	A1. VCC	
	A2. GND	

ENVIRONMENTAL SPECIFICATIONS		
Parameter	Specification	Remark
Operating Case Temperature	-40 ~ +75 $^{\circ}C$	@ Baseplate
Storage Temperature	-40 ~ +85 $^{\circ}C$	

MECHANICAL SPECIFICATIONS		
Parameter	Specification	Remark
Dimension	235 * 87 * 27 mm	
Weight	Less than 1100 g	
RF Input Connector	SMA Female	
RF Output Connector	SMA Female	
DC & I/O Interface Connector	7W2P	
Cooling	Adequate Heat-sink required	

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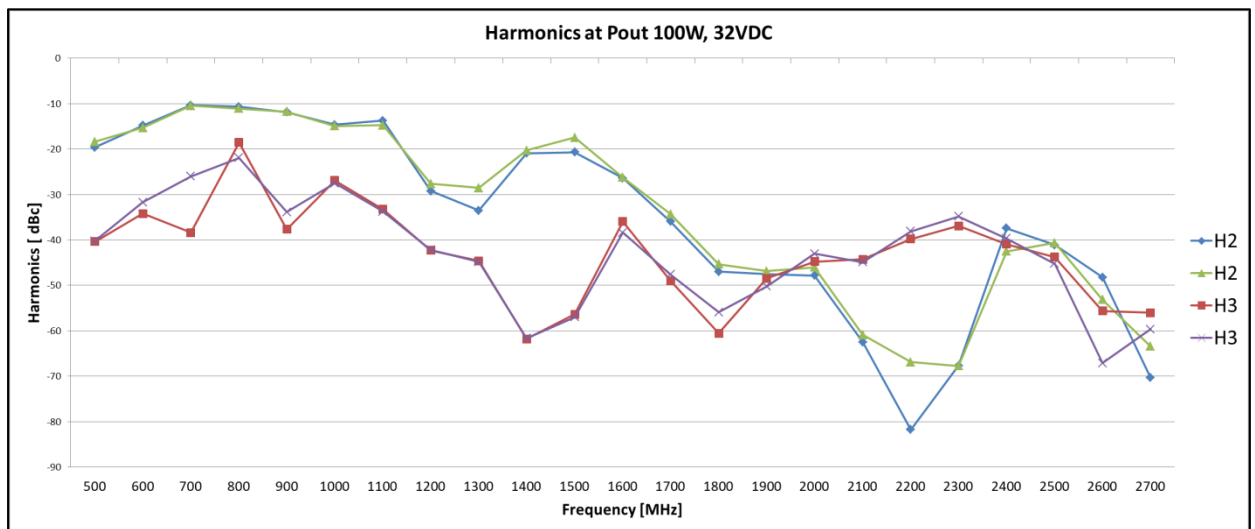
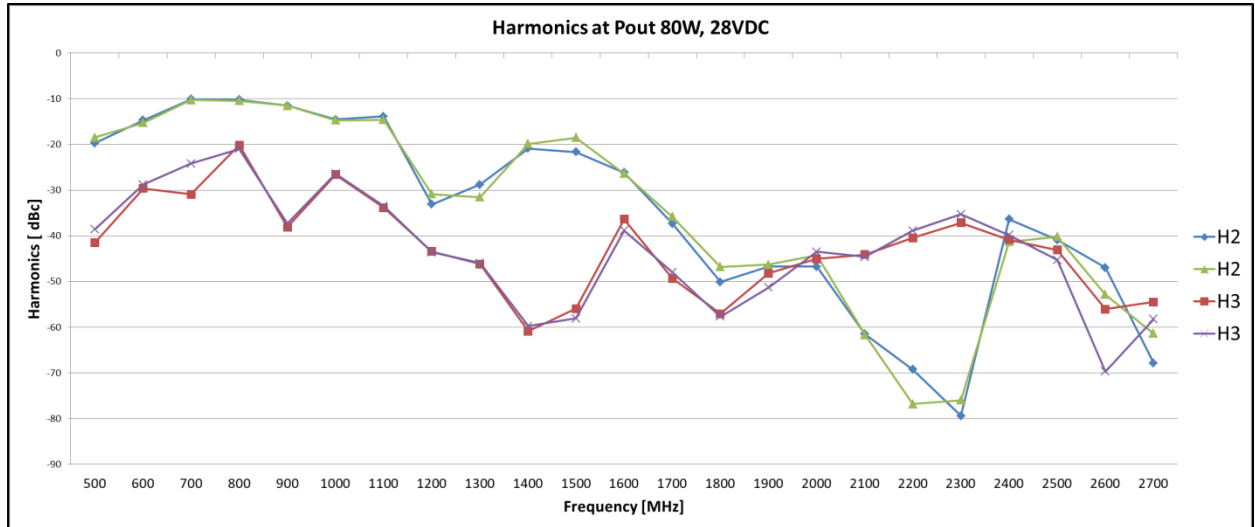
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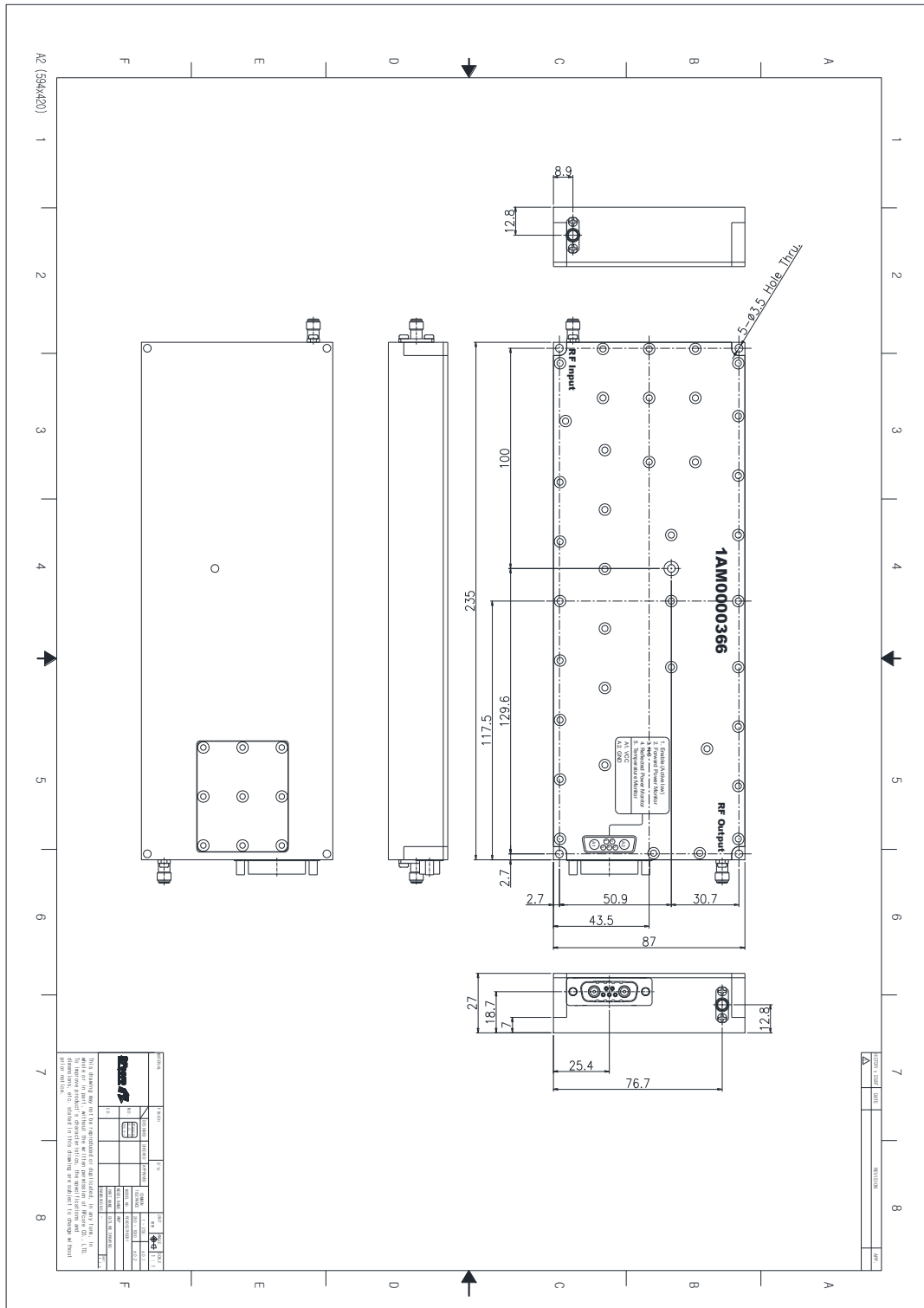
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MECHANICAL DRAWING



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