

# Broadband High Power Amplifier

Product Name : RCA002053H50D, Code Name :

Doc. Name : General Spec.

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<p style="text-align: center;"><b>General Specification</b> for <b>RCA002053H50D</b></p>
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Created	Printed	Document Number	Revision	Manufacturer
2013/7/1	2017/1/12		F	<b>RFcore co.,Ltd</b>
File : RCA002053H50D General Spec.docx				

*The Specifications is subject to change before finalization*

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

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<http://www.rfcore.com>

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ELECTRICAL SPECIFICATIONS		@ 50 Ohms load, 28 Vdc, Tc = 35 °C
Parameter	Specification	Remark
Frequency Range	20 ~ 530 MHz	
Saturated Output Power	20-500MHz : 50 dBm min. 500-530MHz : 49 dBm min.	@ CW
Output Power at 1dB G.C.P	47 dBm min.	
Small Signal Gain	50 dB min.	Input Level = - 15 dBm
Small Signal Gain Flatness	Peak to Peak 5.0 dB	Input Level = - 15 dBm
Maximum Input Power for no damage	10 dBm max.	
Input VSWR	Less than 1.5 : 1	
Maximum load VSWR for amplifier working	3.5 : 1	Works with degraded performance.
Maximum load VSWR for amplifier survival	Infinite, all phase	Take a look video <a href="http://www.youtube.com/watch?v=1kLBxPf4--M">http://www.youtube.com/watch?v=1kLBxPf4--M</a> You can look for this video in youtube.com with keyword 'Rfcore' or 'VSWR protection'
DC Input Voltage	28V ± 0.5 Vdc	
Current Consumption	11.5 A max. 7.5A typ.	@ Pout = 50dBm
I/O Interface (D-Sub 9Pin Male)	1. GND 2. Do not connect 3. VSWR Fail Alarm 4. Temperature Monitor 5. Over Temp. Alarm 6. Enable (Active low) 7. Do not connect 8. Forward Power Monitor 9. Reflected Power Monitor	Alarm : TTL High @ VSWR>4:1 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 Pulled-up @ 5 V with 10 kohm Logarithmic detector (0.05V/dB) Logarithmic detector (0.05V/dB)

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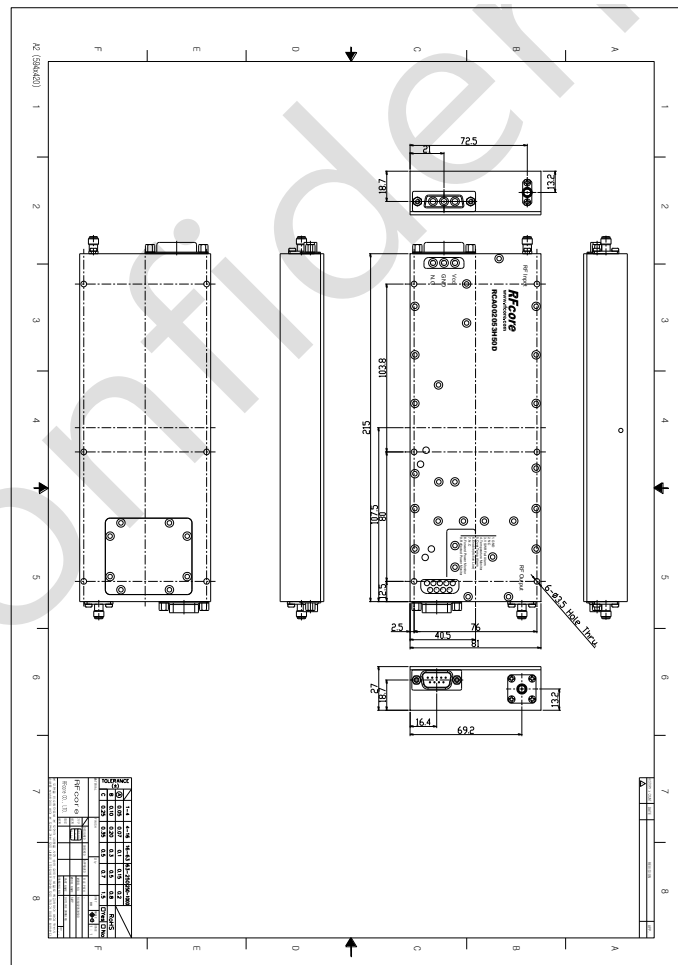
## ENVIRONMENTAL SPECIFICATIONS

Parameter	Specification	Remark
Operating Case Temperature	-20 ~ +70 °C	
Storage Temperature	-40 ~ +85 °C	

## MECHANICAL SPECIFICATIONS

Parameter	Specification	Remark
Dimension	215 * 81 * 27 mm	
Input / Output Connector	SMA Female	
DC Connector	3W3P (A1: Vcc, A2: GND, A3: N.C)	
Control Connector	D-sub 9pin Male	
Cooling	Adequate Heat-sink required	

## MECHANICAL DRAWING



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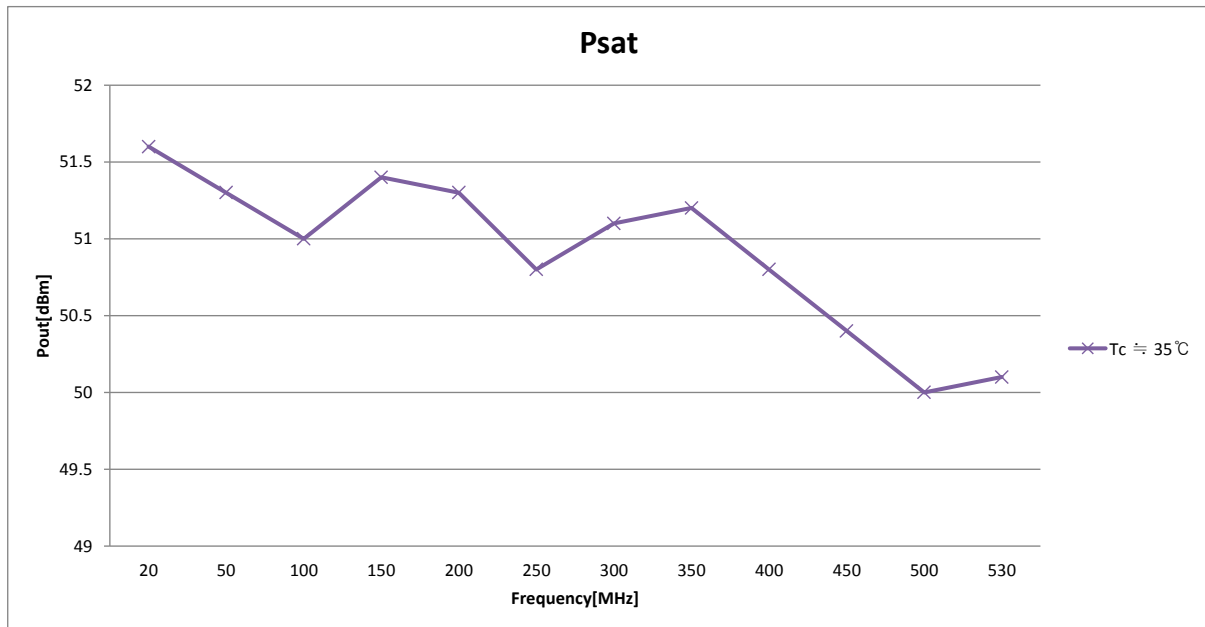
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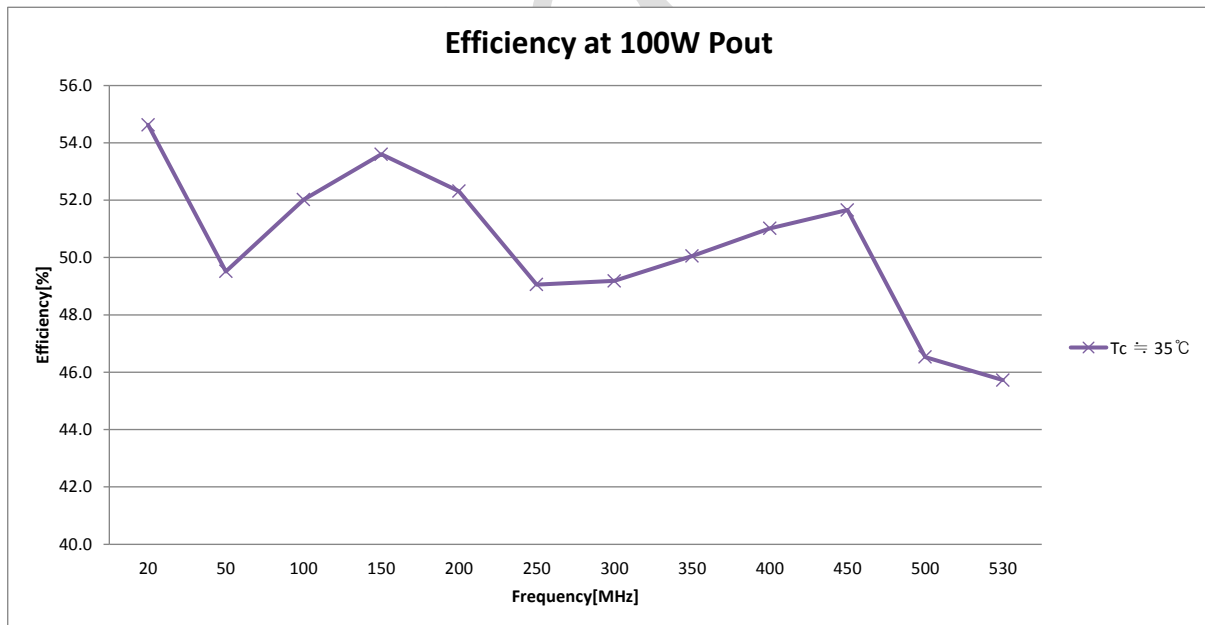
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## RF Performance



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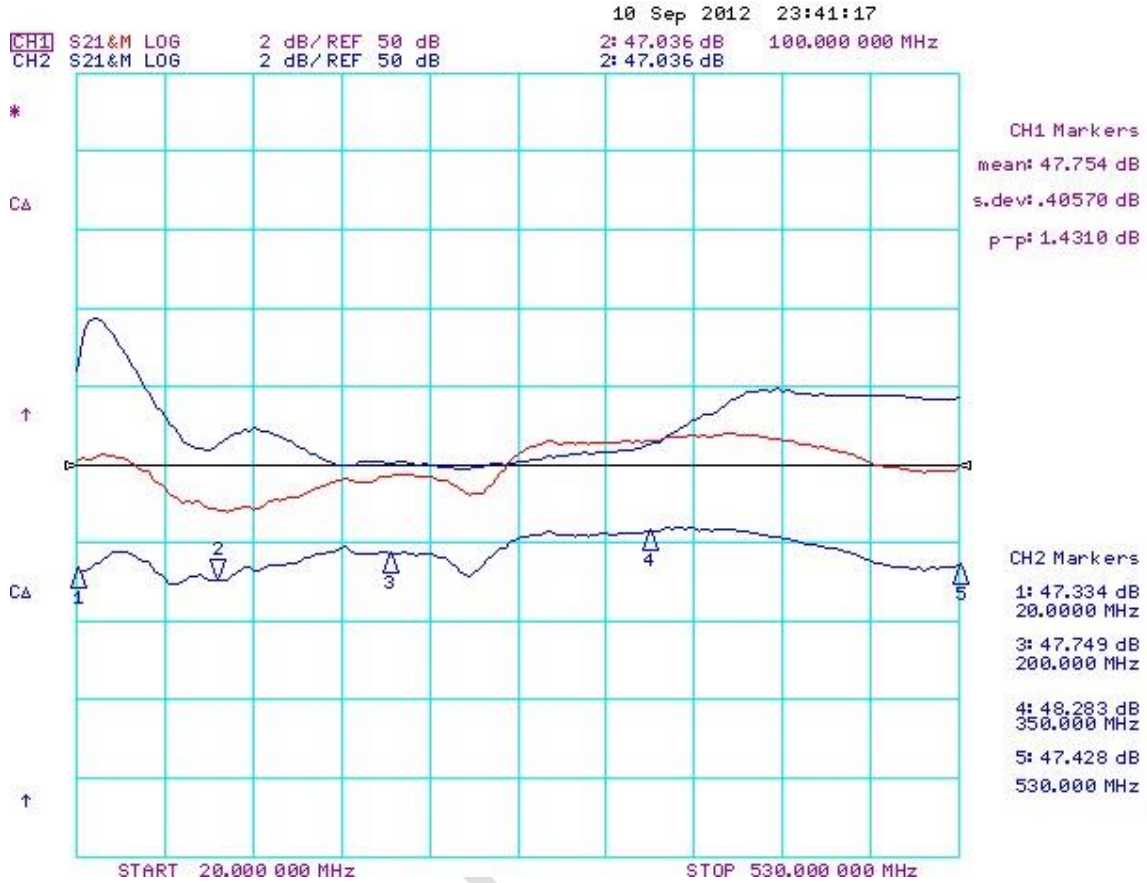
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Top line : Pin = -15dBm

Middle line : Pin = 0 dBm

Bottom line : Pin = +3 dBm



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