

Broadband High Power Amplifier

Product Name : RCA0727H52E1

Doc. Name : General Spec.

<p style="text-align: center;">General Specification for RCA0727H52E1</p>

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Created	Printed	Document Number	Revision	Manufacturer
2017/7/4	2017/7/4		D	RFcore co.,Ltd
File : RCA0727H52E1 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	699 ~ 2700 MHz	
Saturated Output Power	150W min.	@ CW, 50 ohms load condition
Small Signal Gain	53 dB min	Input Power = - 15 dBm
Gain Flatness	Peak to Peak 6.0 dB	Input Power = 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 Output Load Condition for survival	Infinite VSWR	PA will reduce the gain of about 10 dB or less automatically to protect itself. Take a look video http://www.youtube.com/watch?v=1kLBxPf4--M You can look for this video in youtube.com with keyword 'RFcore' or 'VSWR protection'
Harmonics(H2, H3)	Better than -13 dBc	In band
Spurious	Better than -60 dBc	In band
On/Off Switching Time	2 usec typ., 5 usec max.	
DC Input Voltage	28 ± 1 V	
Current Consumption	25 A max. 20A typ.	@ Pout = 150 W CW, 50 ohms load condition
RF Input Signal Format	CW	

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I/O Interface Pin Description		
Connector Type	Pin Name	Pin Description
DC Connector(3W3P)	A1: Vcc	
	A2: GND	
	A3: Do not connect	
I/O Interface (D-Sub 9Pin Male)	1. Enable(Active Low)	Pulled up @ 5 V with 10 kohm
	2. Forward Power Monitor	Logarithmic Detector(0.05V/dB)
	3. VSWR Fail Alarm	TTL HIGH(5V) @ high VSWR VSWR alarm will be activated at a certain ratio between 4 and infinite VSWR. The alarm is not latched signal.
	4. Reflected Power Monitor	Logarithmic Detector(0.05V/dB)
	5. Temperature Monitor	$VT = 10(mV) * Tc(^{\circ}C) + 500(mV)$, $Tc = \text{Case Temperature} \pm 5^{\circ}C$
	6. N.C	
	7. N.C	
	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	280 * 250 * 30 mm	w/o connectors
Weight	Less than 4.1 kg	
Input Connector	SMA Female	
Output Connector	N Type Female	
DC Connector	3W3 (A1:VCC, A2:GND, A3:N.C)	
Control Connector	D-Sub 9Pin Male	
Cooling	Adequate Heat-sink required	

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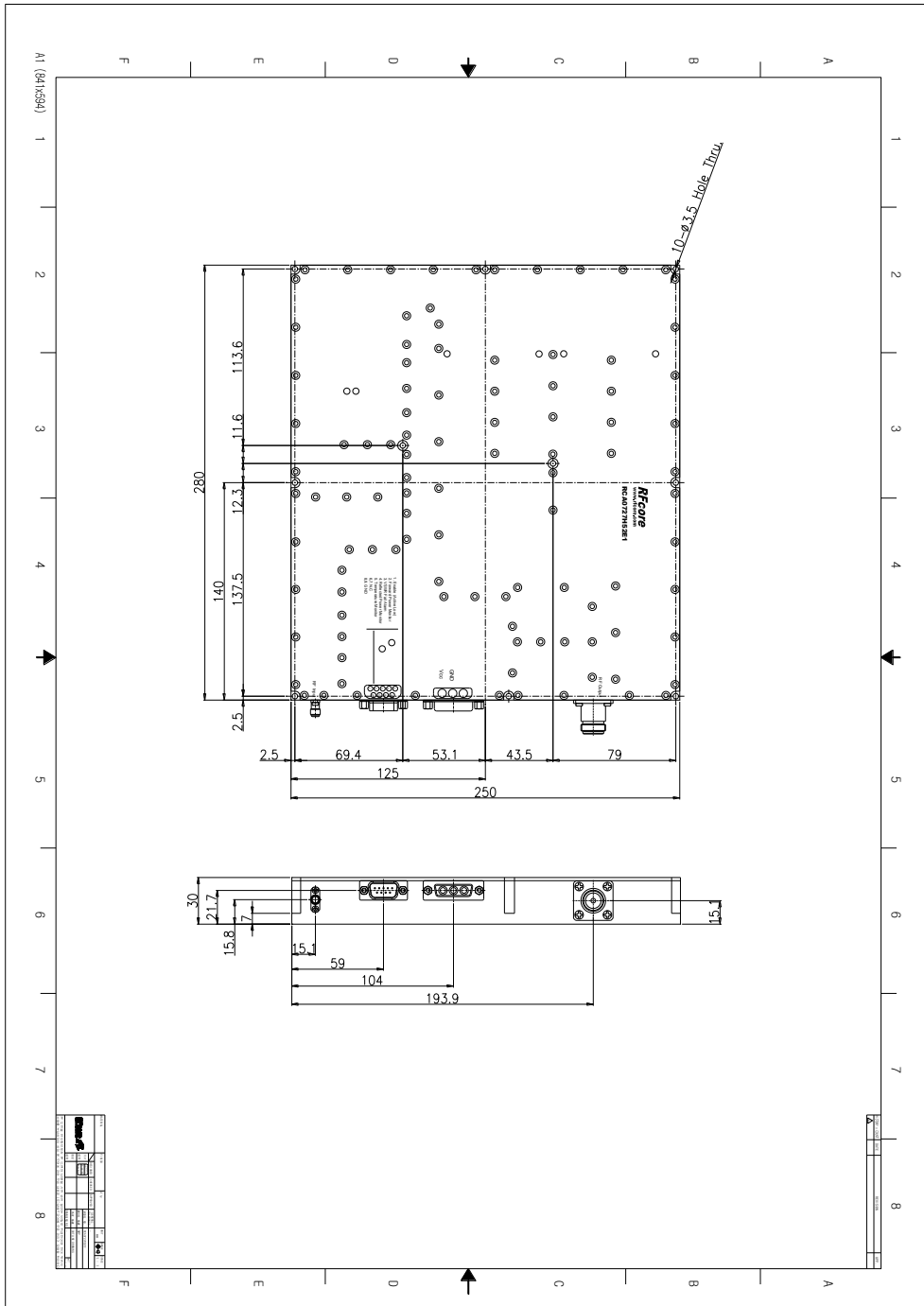
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MECHANICAL DRAWING



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