

# Band-Specific High Power Amplifier

Product Name : RCA2100H50D2, Code Name : A3Y3SD3OI45

Doc. Name : General Spec.

✓ RoHs  
compliant

## General Specification for RCA2100H50D2

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Created	Printed	Document Number	Revision	Manufacturer
2015/1/14	2015/1/14		B	<b>RFcore co.,Ltd</b>
File : RCA2100H50D2 General Spec.docx				

*The Specifications is subject to change before finalization*

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# Band-Specific High Power Amplifier

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## ELECTRICAL SPECIFICATIONS

Parameter	Specification	Remark
Frequency Range	2110 ~ 2170 MHz	
Saturated Output Power	50 dBm min.	
Small Signal Gain @ Center Frequency	45 ± 0.5 dB	Input = -15dBm , Operating temp.
Gain Flatness	Peak to Peak 2 dB	Input = -15dBm, Over Freq Band & Temp
Gain Stability	± 1.5 dB	Operating temp.
Maximum Input Power for no damage on DC ON	10 dBm max	
Maximum Input Power for no damage on DC OFF	25 dBm max	
Input / Output VSWR	Less than 1.5 : 1	
On/Off Switching time	5µs max.	
DC Input Current	12 A max. 11 A typ.	@ Pout = 100W Tcase = 35°C
DC Input Voltage	+27 ± 1.0 Vdc	
RF Input Signal Format	CW	
I/O Map	1. GND	
	2. Do not connect	
	3. VSWR Fail Alarm	Alarm = TTL High(5V) @ Over Reflected power 20W(Current setting is 25~50W)
	4. Temperature Monitor	VT= 3.6 - 0.022 x ( T-30) T = Case Temperature ± 5°C
	5. Over Temp Alarm	Alarm & Shutdown : High(5V) @ case temp. 85 ± 5°C Auto Restart : LOW(0V) @ case temp. 65 ± 5°C
	6. Enable (Active low)	pulled-up@5V with 10KΩ
	7. Do not connect	
	8. Forward Power Monitor	4V±0.1V @ CW 50dBm, slope : 0.1V/dB Vpin8 = 4-(50-Pout)x0.1±0.1V
	9. Reflected Power Monitor	Vpin9 is Diode type Detector. Diode has non-linear log slope characteristic. 0.2 ~ 1V @ 10W ~ 100W

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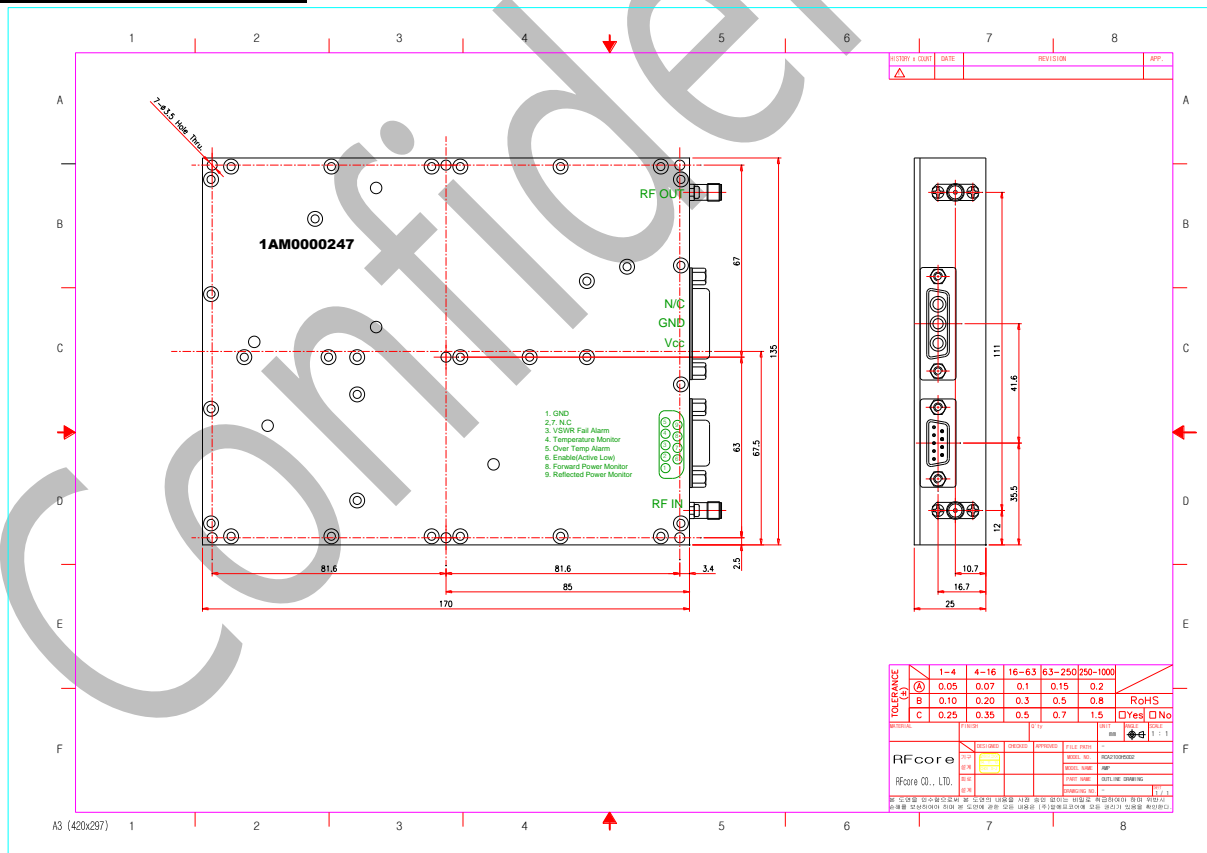
## ENVIRONMENTAL SPECIFICATIONS

Parameter	Specification	Remark
Operating Case Temperature	-20 ~ 75 °C	
Storage Temperature	-40 ~ 85 °C	

## MECHANICAL SPECIFICATIONS

Parameter	Specification	Remark
Dimension	170 x 135 x 25 mm	
RF Input / Output Connector	SMA – Female(2H) / SMA – Female(2H)	
DC Connector	3W3P(A1: +27V, A2: GND, A3: N.C)	
Control Connector	D-Sub 9Pin Male	
Cooling	Adequate Heat-sink required	

## MECHANICAL DRAWING



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