Broadband High Power Amplifier

Product Name: RCA1030H47D, Code Name: C10Y6ND9EN50:

Doc. Name : Preliminary Short Spec.

Preliminary Short Specification

for

RCA1030H47D

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2013/9/2	2017/1/17		В	RFcore co.,Ltd
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ELECTRICAL SPECIFICATIONS	@ 50 Ohms load, 28 Vdc, Tc ≒ 35 ℃		
Parameter	Specification	Remark	
Frequency Range	1000 ~ 3000 MHz	B1 : 1000 ~ 2200 MHz	
		B2 : 2200 ~ 3000 MHz	
Saturated Output Power @ B1	47 dBm min.	@ CW	
Saturated Output Power @ B2	44 dBm min.	@ CW	
Gain @ B1	50 dB min.	Input Level = - 15 dBm	
Gain over whole of frequency	46 dB min.	Input Level = - 15 dBm	
Gain Flatness @ B1	Peak to Peak 3.0 dB	Input Level = - 15 dBm	
Gain Flatness over frequency	Peak to Peak 7.0 dB	Input Level = - 15 dBm	
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	Infinite, all phase	If the alarm is generated, the gain	
survival		of the amplifier is automatically	
		reduced to protect itself.	
ON/OFF Switching time	Less than 1 msec		
DC Input Voltage	28 ± 1 Vdc		
Current Consumption @ B1	6.5 A typ., 7.5 A max.	@ Pout = 47dBm	
Current Consumption over frequency	4.5 A typ., 5.5 A max.	@ Pout = 44dBm	

Interface Pin Description			
Connector	Description	Specification	
I/O Interface(D-Sub 9Pin Male)	1. Enable (Active low)	Pulled-up @ 5V with 10kohm	
	2. Forward Power Monitor	Logarithmic Detector(0.05V/dB)	
		TTL HIGH(5V) @ high VSWR	
	3 VSWR Fail Alarm	VSWR alarm will be generated a	
	5. VSVVK Fall Aldith	certain ratio between 4 and infinite	
		VSWR. The alarm is not latched.	
	4. Reflected Power Monitor	Logarithmic Detector(0.05V/dB)	
	5. Temperature Monitor	VT= 10(mV) * Tc(°C) + 500(mV),	
		Tc = Case Temperature± 5℃	
	6. VCC		
	7. VCC		
	8. GND		
	9. GND		

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ENVIRONMENTAL SPECIFICATIONS			
Parameter	Specification	Remark	
Operating Case Temperature	-20 ~ 60 ℃	@ Baseplate	
Storage Temperature	-40 ~ 85 ℃		

IECHANICAL SPECIFICATIONS			
Parameter	Specification	Remark	
Dimension	235 * 87 * 27 mm		
Weight	Less than 1100 g		
RF Input Connector	SMA Female		
RF Output Connector	N Female		
DC & I/O Interface Connector	D-sub 9pin Male		
Cooling	Adequate Heat-sink required		

MECHANICAL DRAWING



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