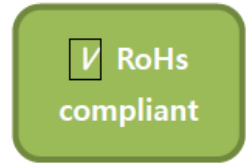


# Broadband High Power Amplifier

Product Name : RCA002053H50H, Code Name :

Doc. Name : General Spec.



## General Specification for RCA002053H50H

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Created	Printed	Document Number	Revision	Manufacturer
2014/6/24	2016/9/5		B	<b>RFcore co.,Ltd</b>
File : RCA002053H50H 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>

# Broadband High Power Amplifier

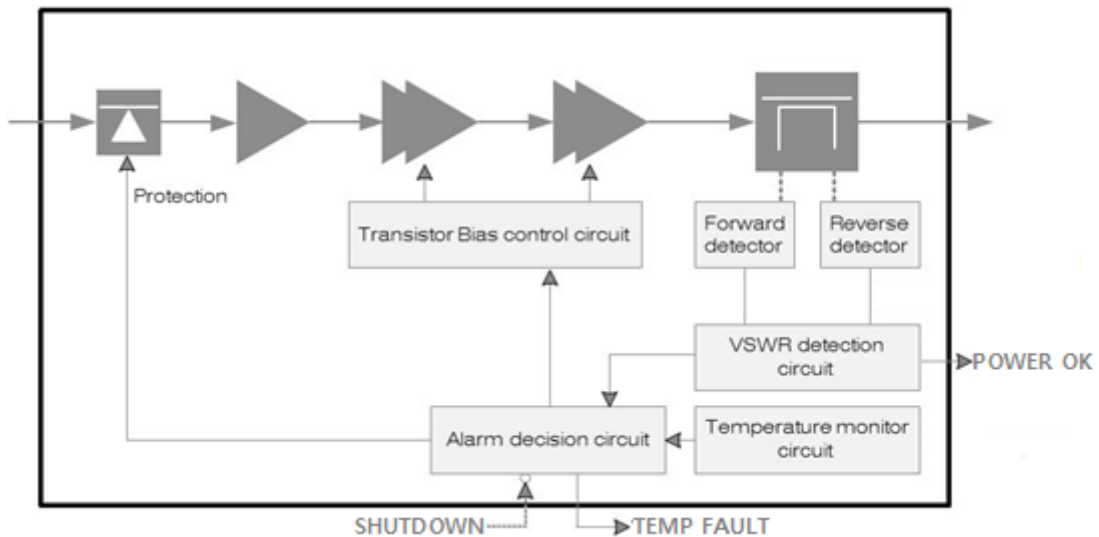
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ELECTRICAL SPECIFICATIONS		@ 50 Ohms load, 28Vdc, Tc = 35 °C
Parameter	Specification	Remark
Frequency Range	20 ~ 520 MHz	
Saturated Output Power	20-520MHz : 50 dBm min	@ CW, 50 ohm load
Output Power at 1dB Compression Point	46 dBm min.	@ CW
Small Signal Gain	50dB min	@ Input = -15dBm
Gain Flatness	± 1.5 dB	@ Input = 0dBm
Input Power for no damage on DC ON	10dBm max	@ 50 ohm load
Harmonics output@ Pout = 100W	10dBc min.	
Spurious Signals	70dBc typ, 60dBc min.	
Input VSWR	Less than 1.5 : 1	
Maximum Output Load Condition for survival	Infinite VSWR	
On/Off Switching Time	2 usec typ.	Typical off -> on : 1.5 usec on -> off : 0.6 usec
DC Input Voltage	+28V	Working with degraded performance down to 20V
Current Consumption	8A typ. , 9.0A max	Efficiency > 40% @ 100W @50 Ohm load
RF Input Signal Format	CW, FM, AM, pulse etc.	

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Block diagram



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I/O Interface		
Parameter	Specification	Remark
I/O Map (Feed Thru)	FL1 Shutdown	TTL Logic "High(3.0~5.0V)" : Amp. Disable TTL Logic "Low" or pin is opened : Amp. Enable (Internally pulled-down)
	FL2 POWER OK (Fcenter : 250MHz)	P <sub>out</sub> < 50 Watt TTL Logic Low P <sub>out</sub> > 50 Watt TTL Logic High
	FL3 TEMP FAULT	Temp. Fault -> 80°C TTL Logic High (Nomally TTL Logic Low)
	FL4 Vdc(+28V)	
	FL5 GND	GND

\* Internal protection

VSWR fail protection operates when output is connected VSWR >5:1 load :

- Typical 10dB back-off

ENVIRONMENTAL SPECIFICATIONS		(Design to meet)
Parameter	Specification	Remark
Operating Case Temperature	-20 ~ +80 °C	
Storage Temperature	-30 ~ +85 °C	
Vibration	MIL-STD-810F – Method 514.5 – Proc I Category 13	Airborne
Shock	MIL-STD-810F – Method 516.5 – Proc I	Airborne
Relative Humidity (Non-Condensing)	MIL-STD-810F – Method 507.4	
Altitude	MIL-STD-810F – Method 500.4 – Proc II	

MECHANICAL SPECIFICATIONS		
Parameter	Specification	Remark
Dimension	152.4 X 63.5 X 34 mm	
RF Input Connector	SMA – Female	
HPA Output Connector	SMA – Female	
Coupler Input Connector	SMA – Female	
RF Output Connector	SMA – Female	
DC & Interface Connector	Feed Thru	
Cooling	Adequate Heat-sink required	

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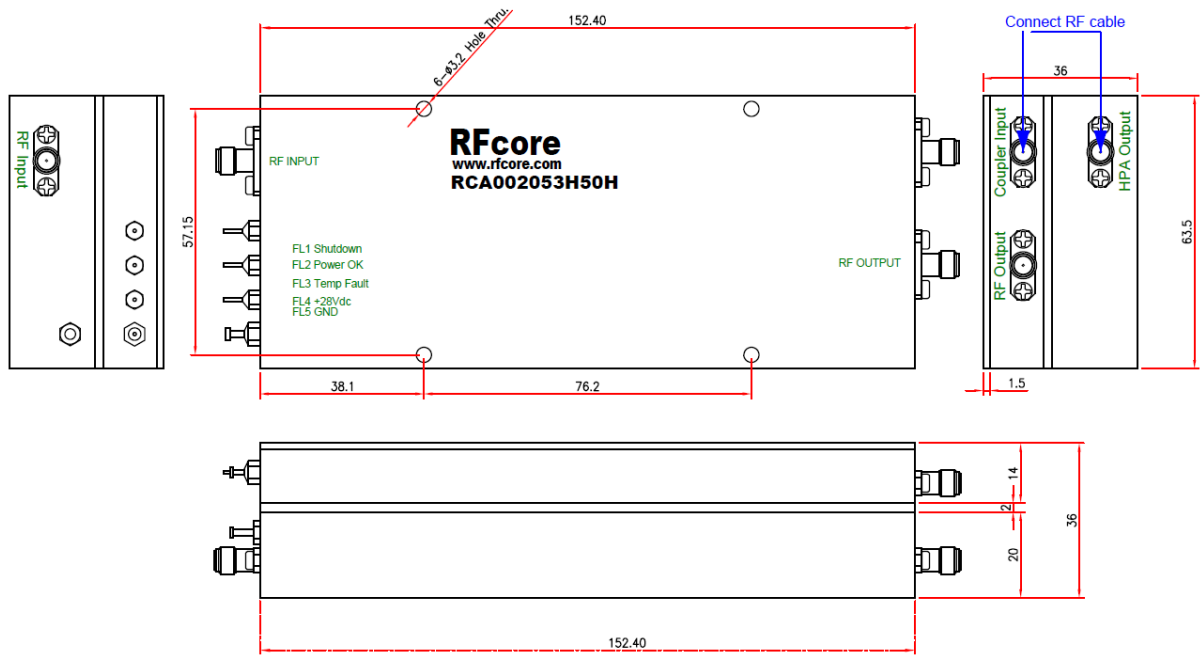
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## MECHANICAL DRAWING



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