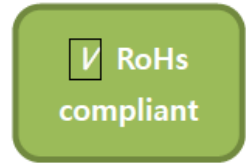


Broadband High Power Amplifier

Product Name : RCA002053H50H, Code Name :

Doc. Name : General Spec.



General Specification for RCA002053H50H

1

RESTRICTION ON USE, DUPLICATION, OR DISCLOSURE OF PROPRIETARY INFORMATION

This document contains proprietary information, which is the sole property of RFcore co., LTD.

The document is submitted to the recipient for his use only.

By receiving this document the recipient undertakes not to duplicate the documents or to disclose in part of, or the whole of, any of the information contained herein to any third party without receiving before hand, written permission from the submitting company.

Created	Printed	Document Number	Revision	Manufacturer
2014/6/24	2017/1/12		B	RFcore co.,Ltd
File : RCA002053H50H General Spec.docx				

The Specifications is subject to change before finalization

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

Email: sales@rfcore.com

<http://www.rfcore.com>

Broadband High Power Amplifier

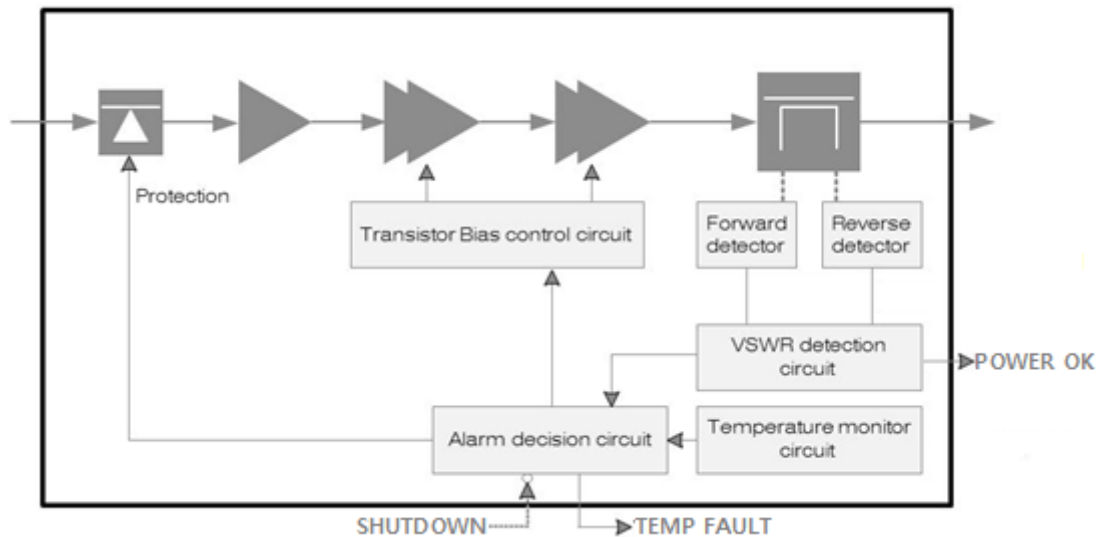
Product Name : RCA002053H50H, Code Name :

Doc. Name : General Spec.

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.	

2

Block diagram



Created	Printed	Document Number	Revision	Manufacturer
2014/6/24	2017/1/12		B	RFcore co.,Ltd
File : RCA002053H50H General Spec.docx				

The Specifications is subject to change before finalization

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

Email: sales@rfcore.com

http://www.rfcore.com

Broadband High Power Amplifier

Product Name : RCA002053H50H, Code Name :

Doc. Name : General Spec.

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 _{out} < 50 Watt TTL Logic Low P _{out} > 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	

Created	Printed	Document Number	Revision	Manufacturer
2014/6/24	2017/1/12		B	RFcore co.,Ltd
File : RCA002053H50H General Spec.docx				

The Specifications is subject to change before finalization

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

Email: sales@rfcore.com

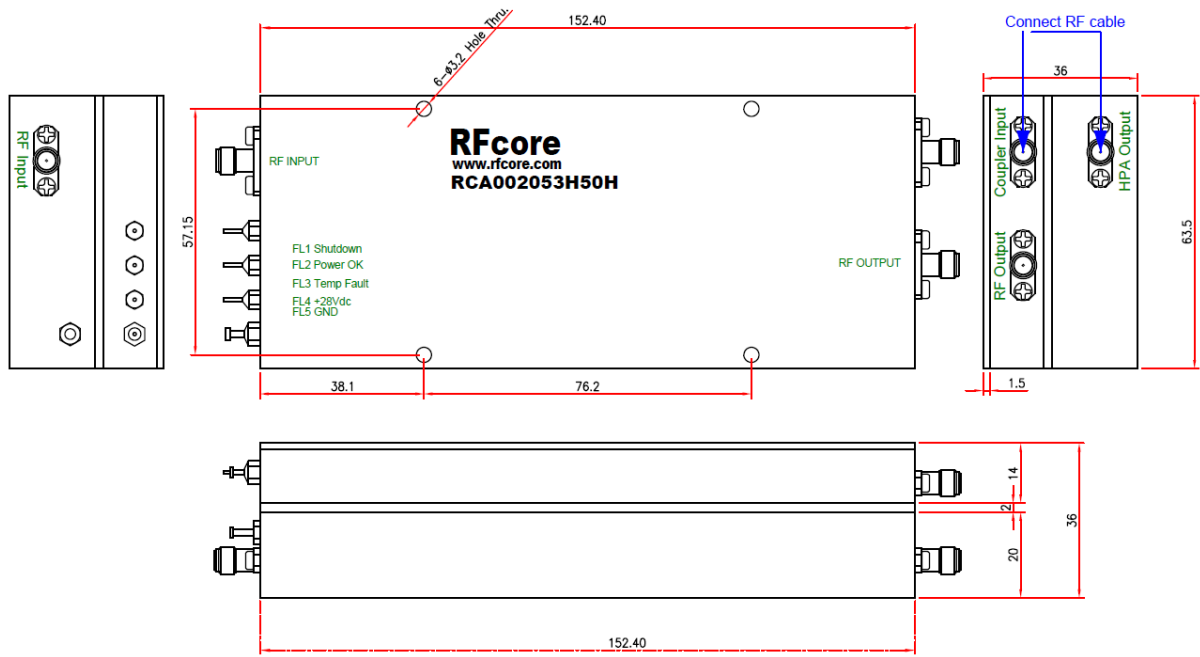
http://www.rfcore.com

Broadband High Power Amplifier

Product Name : RCA002053H50H, Code Name :

Doc. Name : General Spec.

MECHANICAL DRAWING



Created	Printed	Document Number	Revision	Manufacturer
2014/6/24	2017/1/12		B	RFcore co.,Ltd
File : RCA002053H50H General Spec.docx				

The Specifications is subject to change before finalization

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

Email: sales@rfcore.com

http://www.rfcore.com