

Preliminary
LNA Module
RRM1214-R1A



Product Features

- Frequency from 1.2 ~ 1.4GHz
- 50ohm Input/Output Impedance
- Ultra-low Noise Figure
- Flexible bias voltage: 7 to 15 V

Applications

- L-Band Radar
- Communication system



Description

The RRM1214-R1A is designed for the L-band Radar system. This LNA Module provides ultra-low noise figure and high P1dB.

Electrical Specifications @ Ta=25°C, 50Ω System

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	GHz	1.2		1.4	F
Output P1dB	dBm		18		P1dB
Noise Figure	dB			0.45	NF
Gain	dB	36	37	38	G
Gain Flatness	dB	-0.75		+0.75	Gf
Gain Ripple	dB			0.2	Gr
Gain pushing	dB/Volt			0.1	Gp
Phase linearity	°			1	Pl
Gain linearity	dB			0.1	Gl
AM/PM conversion	°/dB			0.5	AM/PM
Reverse Gain	dB	-50			Grv
Output 2nd Harmonics	dBc	25			H
Output 3rd Harmonics	dBc	40			H
Output 3rd Order Intercept Point	dBm	20			IP3
Operating Voltage	V	7	15		-

- Test Conditions

Input power = -35dBm

+15V External Capacitor : None

Environmental Specifications

Operating Temperature	-30°C to +70°C
Storage Temperature	-65°C to +150°C
Humidity ⁽¹⁾	Non-condensing Relative humidity level of 0 ~ 100% @Ta ⁽²⁾ =+60°C

(1) Ref. : mil-STD-883 method 1004

(2) Ta = ambient temperature

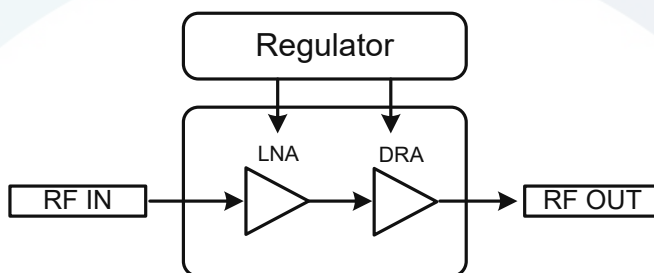
Preliminary
LNA Module
RRM1214-R1A



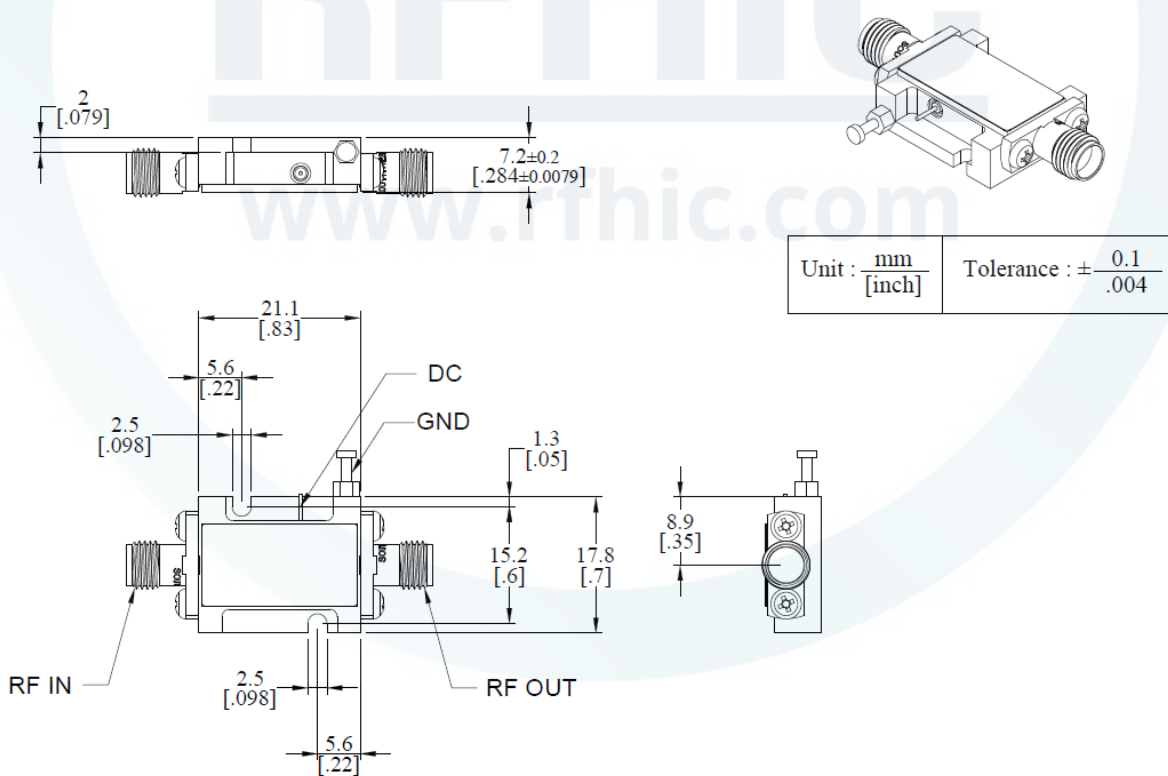
Mechanical Specifications

Physical Dimension (W × D × H)	17.78mm x 21.08mm x 7.22mm
DC Connector	Feedthrough (male)
RF Connector	SMA Connector (Male)

Block Diagram



Drawing



Preliminary
LNA Module
RRM1214-R1A



Revision History

Part Number	Release Date	Version	Description	Data Sheet Status
RRM1214-R1A	Feb, 2022	0.1	Initial release of datasheet	



Certification

This product is manufactured by a company that is certified for the AS9100D quality management system.

RFHIC Corporation reserves the right to make changes to any products herein or to discontinue any product at any time without notice. While product specifications have been thoroughly examined for reliability, RFHIC Corporation strongly recommends buyers to verify that the information they are using is accurate before ordering. RFHIC Corporation does not assume any liability for the suitability of its products for any particular purpose, and disclaims any and all liability, including without limitation consequential or incidental damages. RFHIC products are not intended for use in life support equipment or application where malfunction of the product can be expected to result in personal injury or death. Buyer uses or sells such products for any such unintended or unauthorized application, buyer shall indemnify, protect and hold RFHIC Corporation and its directors, officers, stockholders, employees, representatives and distributors harmless against any and all claims arising out of such unauthorized use. Sales, inquiries and support should be directed to the local authorized geographic distributor for RFHIC Corporation. For customers in the US, please contact the US Sales Team at +1-919-677-8780. For all other inquiries, please contact the International Sales Team at +82-31-8069-3000.