

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

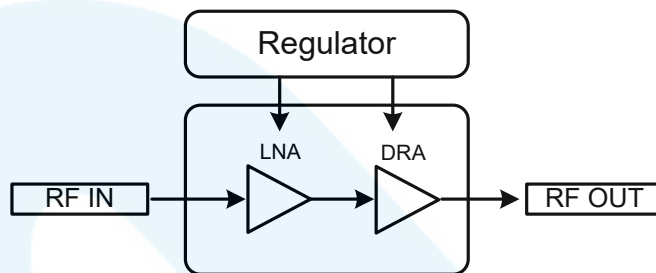
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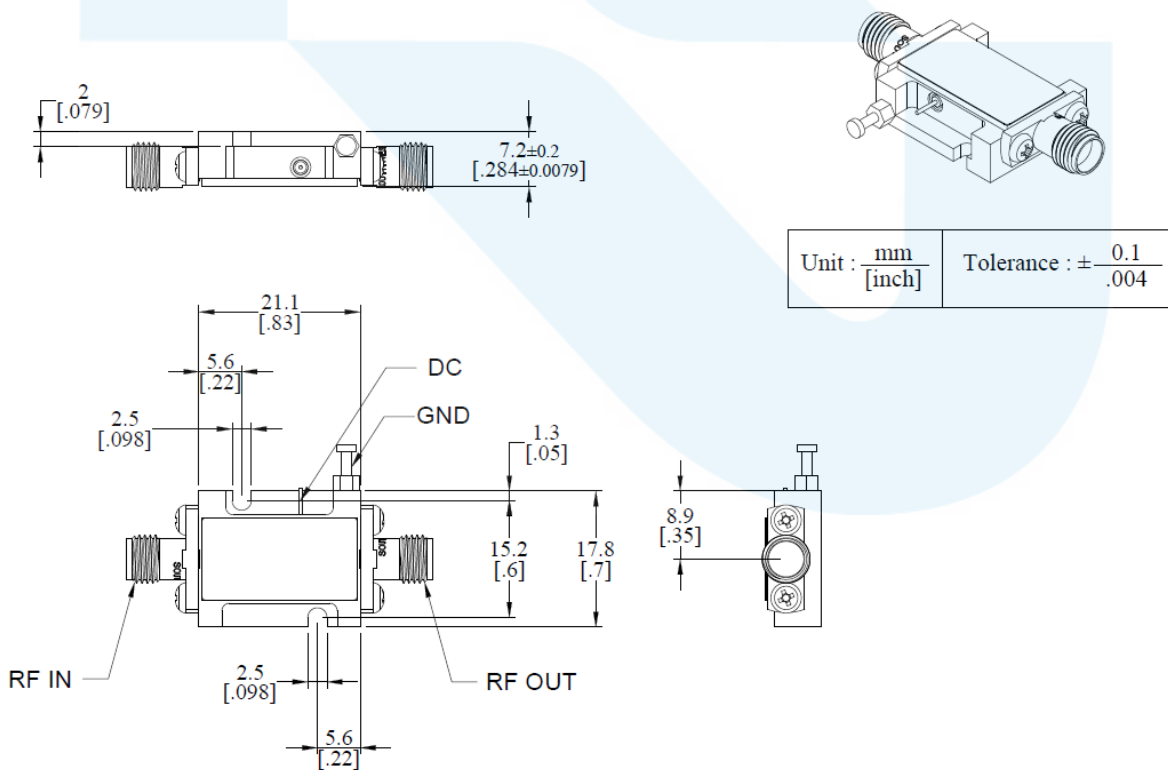
Mechanical Specifications

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



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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.

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