HARDWARE

REFERENCE DESIGN

UM620N

Automotive Grade Dual-frequency Multi-GNSS Positioning Module

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Revision History

Version	Revision History	Date
R1.0	First release	Oct. 2022

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1 Reference Circuit Using an Active Antenna

- The supply voltage for VCC is 2.7 V ~ 3.6 V
- Ground all GND pins of the module
- Connect the RF_IN signal to the antenna; note the 50 Ω impedance matching
- Feed the antenna with external power supply
- The supply voltage for VBCKP is 1.7 V ~ 3.6 V

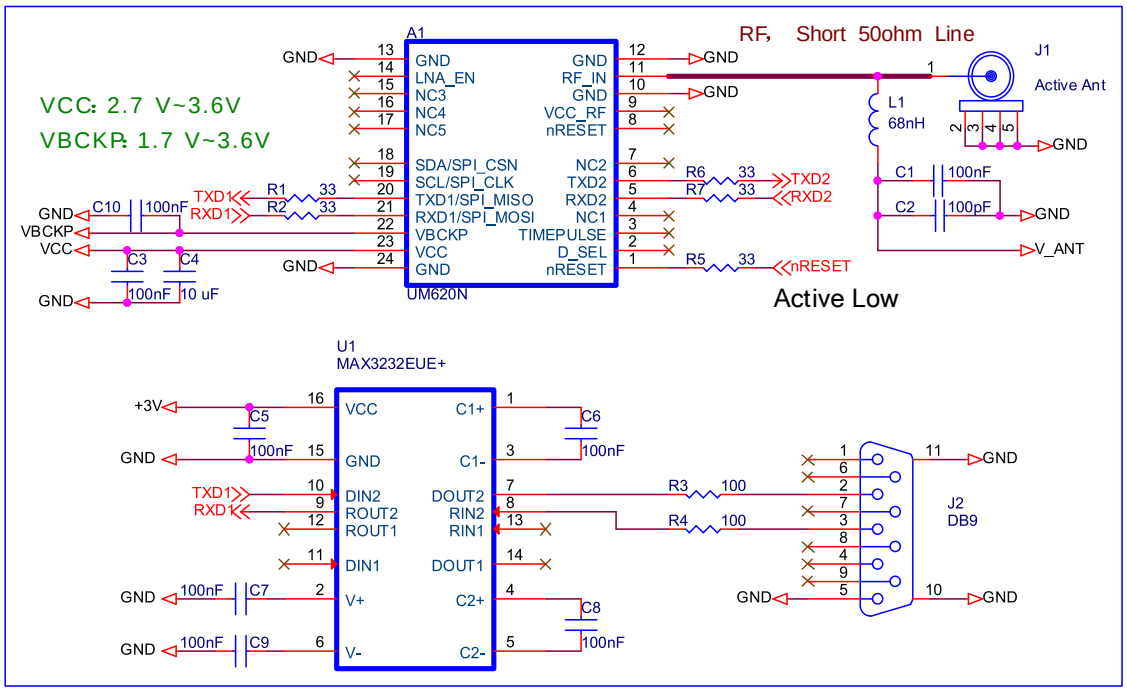


Figure 1-1 Reference Circuit Using an Active Antenna

2 Reference Circuit Using a Passive Antenna

- When using a passive antenna, a low noise amplifier should be added between the antenna and the RF_IN of the module in order to ensure the performance of the system.
- For the RF routing (antenna → LNA → RF_IN), note the 50 Ω impedance matching
- The supply voltage for VBCKP is 1.7 V ~ 3.6 V

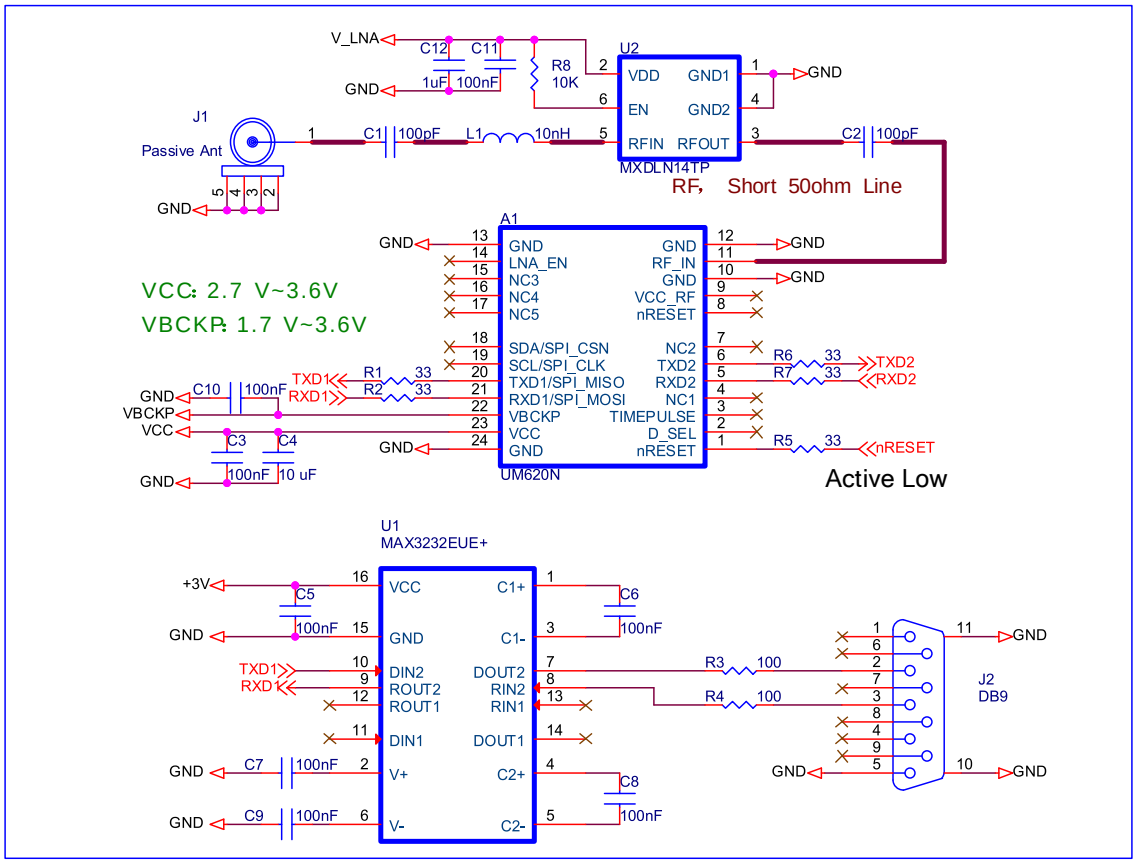


Figure 2-1 Reference Circuit Using a Passive Antenna

3 Recommended BOM

	Component	Order No.	Manufacturer
U1	RS-232 Transceivers	TRS3122ERGER	TI
U2	LNA	MXDLN14TP	MAXSCEND

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