

RM520N Series

Reference Design

5G Module Series

Version: 1.2

Date: 2023-12-22

Status: Released



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About the Document

Revision History

Version	Date	Author	Description
-	2021-12-13	Wynna SHU	Creation of the document
1.0	2022-07-15	Wynna SHU	First official release
1.1	2023-04-17	Archibald JIANG	1. Added applicable module: RM520N-EU. 2. Updated the value of R0202, R0204, R0205, R0206, R0207, R0208, C0212, L0201, Vstart, Vstop and Vref (Sheet 2).
1.2	2023-12-22	Archibald JIANG	Added a note on avoiding abnormal RF functions caused by current sink on the module's pins (Sheet 1).

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1 Reference Design

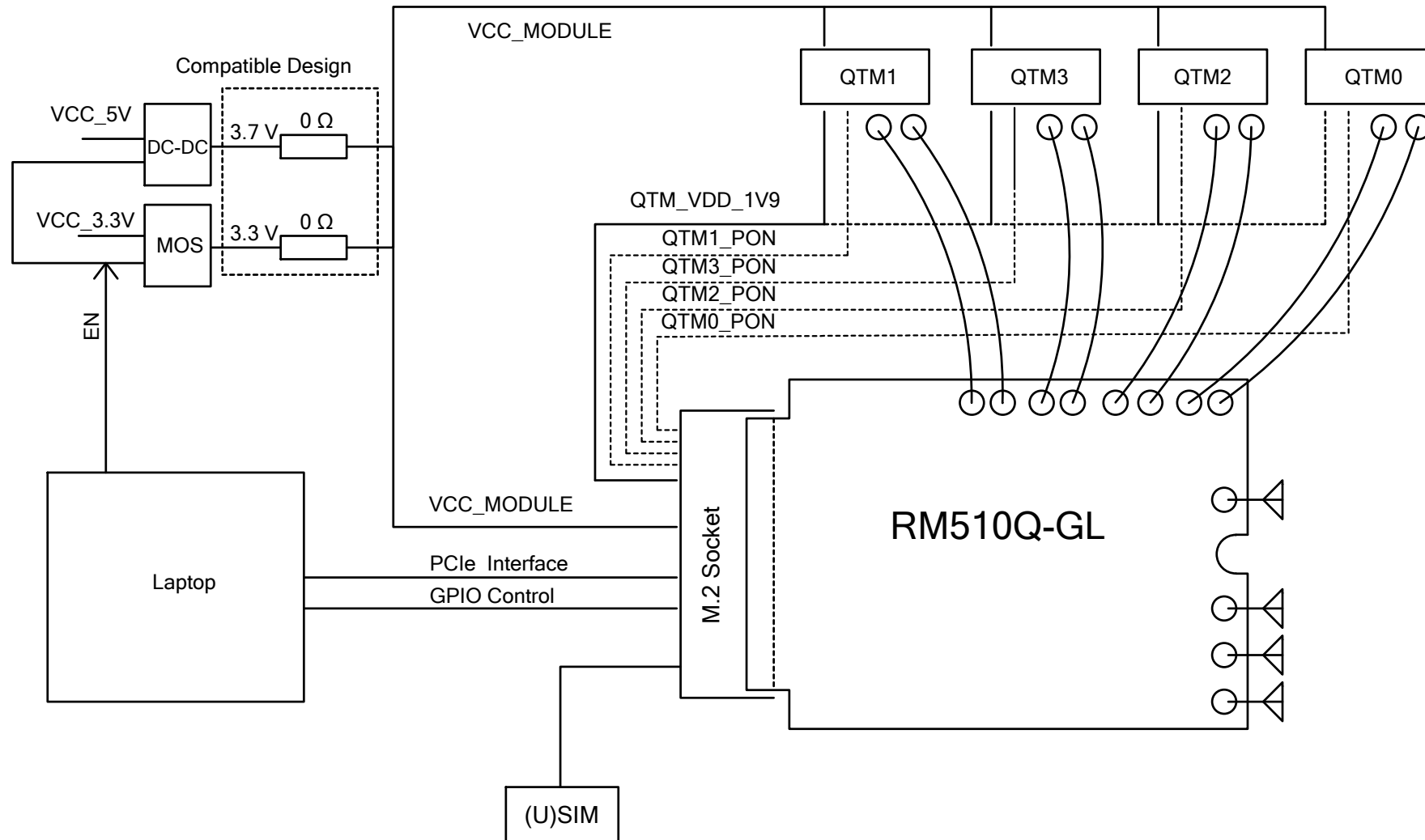
1.1. Introduction

This document provides the reference design for RM520N series module, including the design for power supply, module interfaces, AP interfaces and (U)SIM interfaces.

1.2. Schematics

The schematics illustrated in the following pages are provided for reference only.

Block Diagram

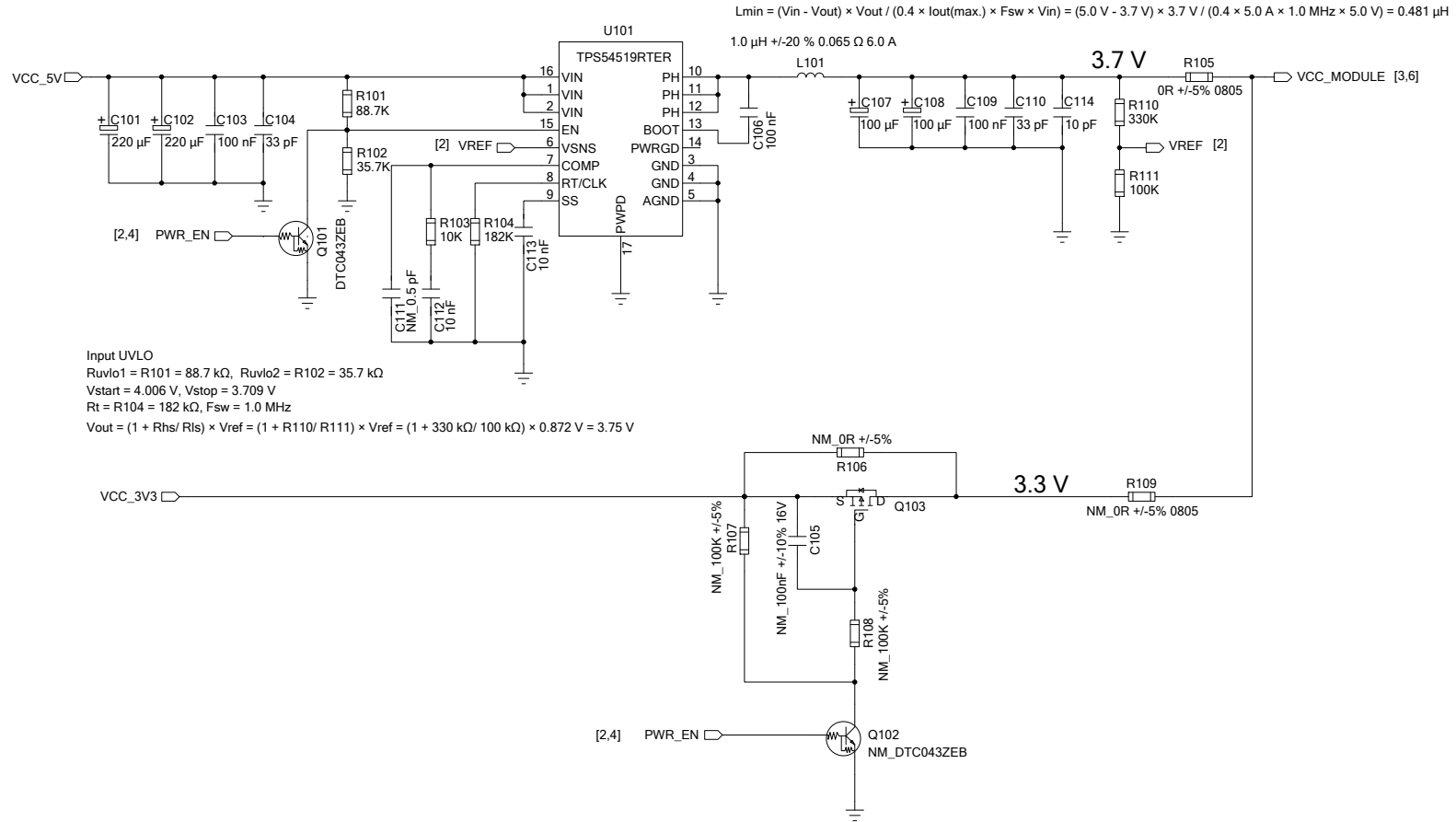


Note:

Before the module turns on, ensure the pins DPR and USIM_DET are not pulled high to avoid current sink damaging the module. For more details, contact Quectel Technical Support.

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Power Supply Design



Notes:

1. The power supply must be able to provide sufficient current up to 5 A or higher.
2. A compatible design is recommended for VCC power supply.

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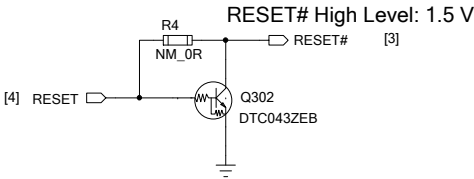
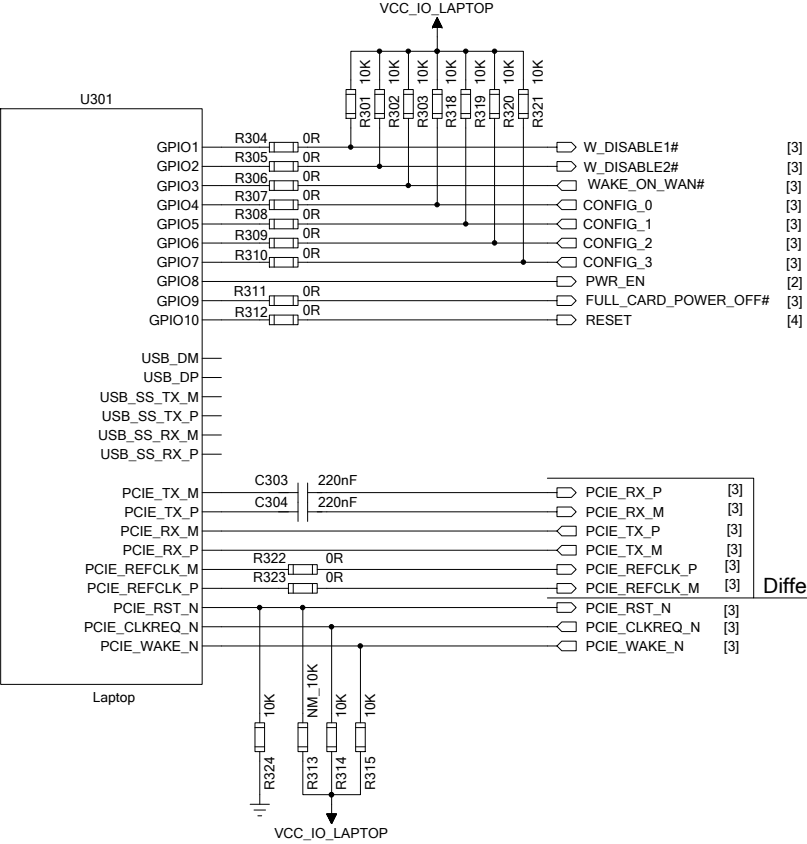
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Connectivity Between Laptop and RM510Q-GL (Part 2)



Differential Impedence: 85 Ω

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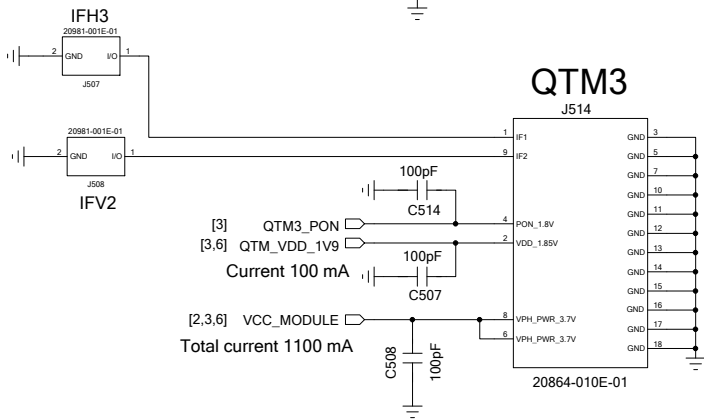
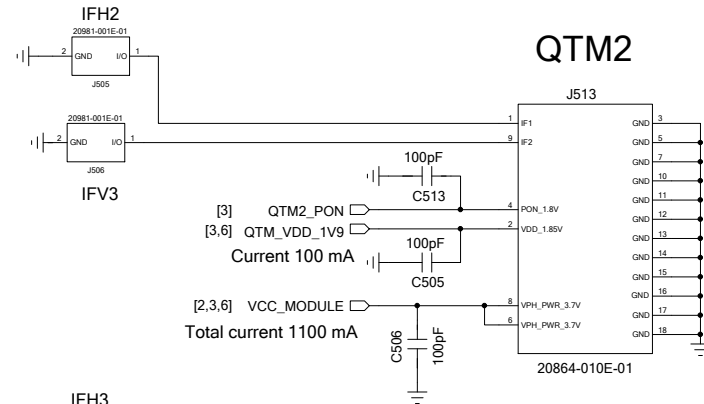
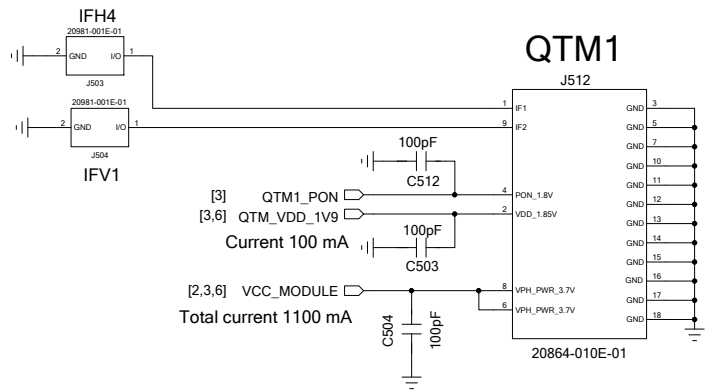
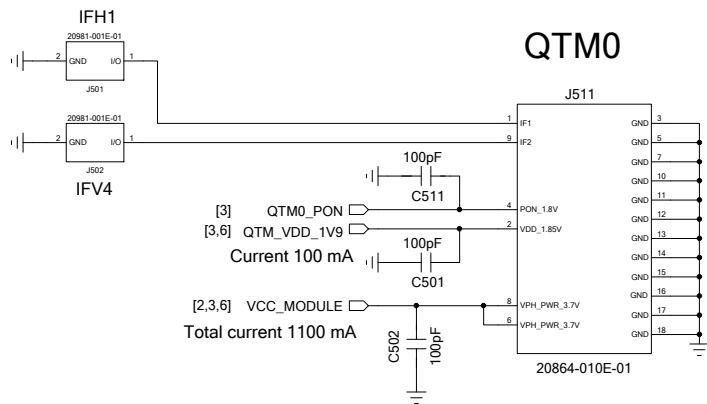


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mmWave IF Interfaces



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