



INSTALLATION AND OPERATION  
**QUICK GUIDE**

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# UM220-IV L EVK

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## Revision History

Version	Revision History	Date
R1.0	First release.	Apr., 2023
R1.1	Changed the product name from UM220-IV L EVK Suite V1.0 to UM220-IV L EVK.  Changed the product photos.  Changed the document file name from UM220-IV L EVK Suite _Quick Guide to UM220-IV L EVK_Quick Guide.	June, 2025

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## Foreword

This document describes the product features and information of Unicore UM220-IV L EVK. The document can be used together with *uSTAR Instructions*.

### Target Readers

This manual is created for the technical personnel, who possess the expertise of GNSS products.

## Contents

1	Overview .....	1
2	Composition .....	1
3	Interfaces.....	3
4	Indicators .....	3
5	Connection and Configuration .....	4

# 1 Overview

UM220-IV L Evaluation Kit (hereinafter referred to as EVK board), is mainly used to test and evaluate the function and performance of UM220-IV L module for user's convenience.

## 2 Composition

UM220-IV L EVK board consists of the NPL\_EVK\_SWITCH3V3\_L board and the NPL-EVK board. See the pictures below:

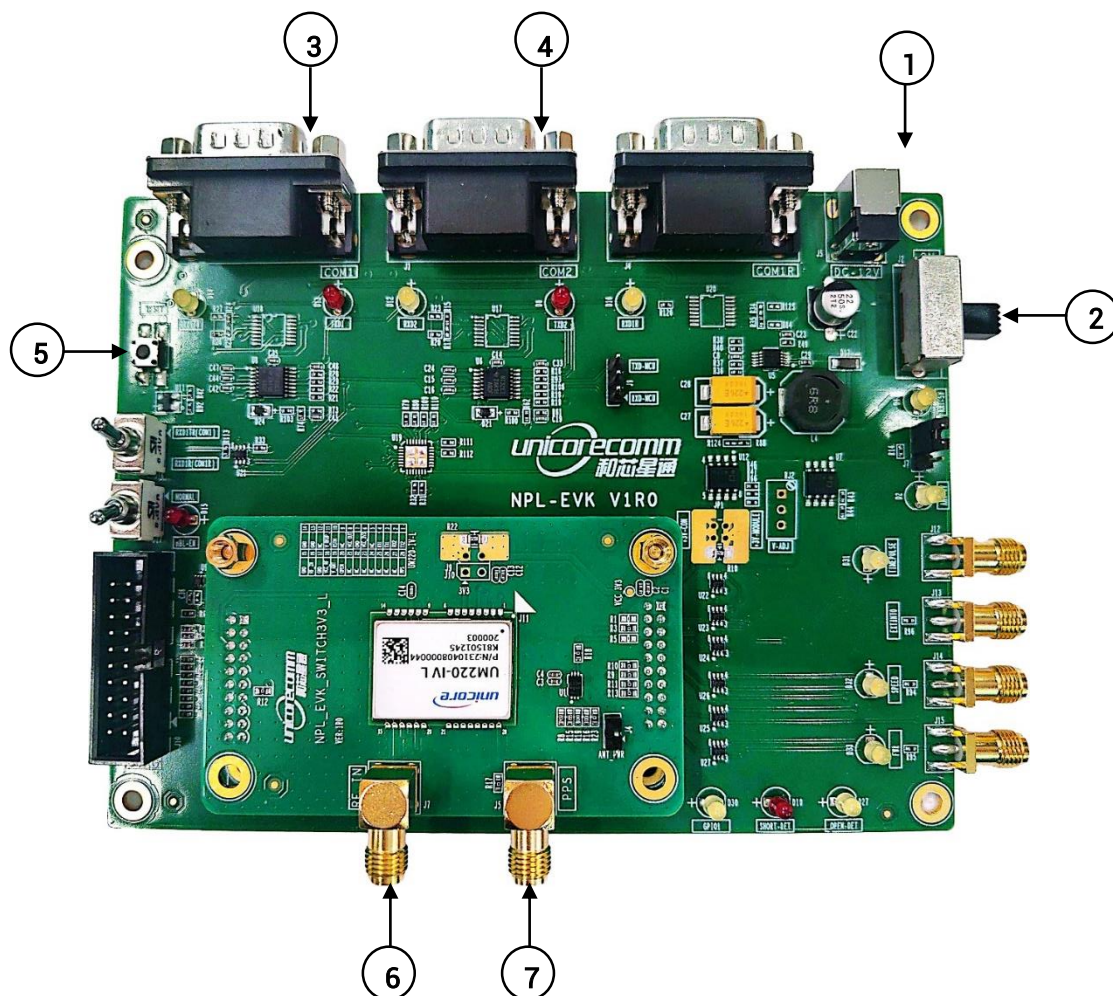


Figure 2-1 UM220-IV L EVK Board



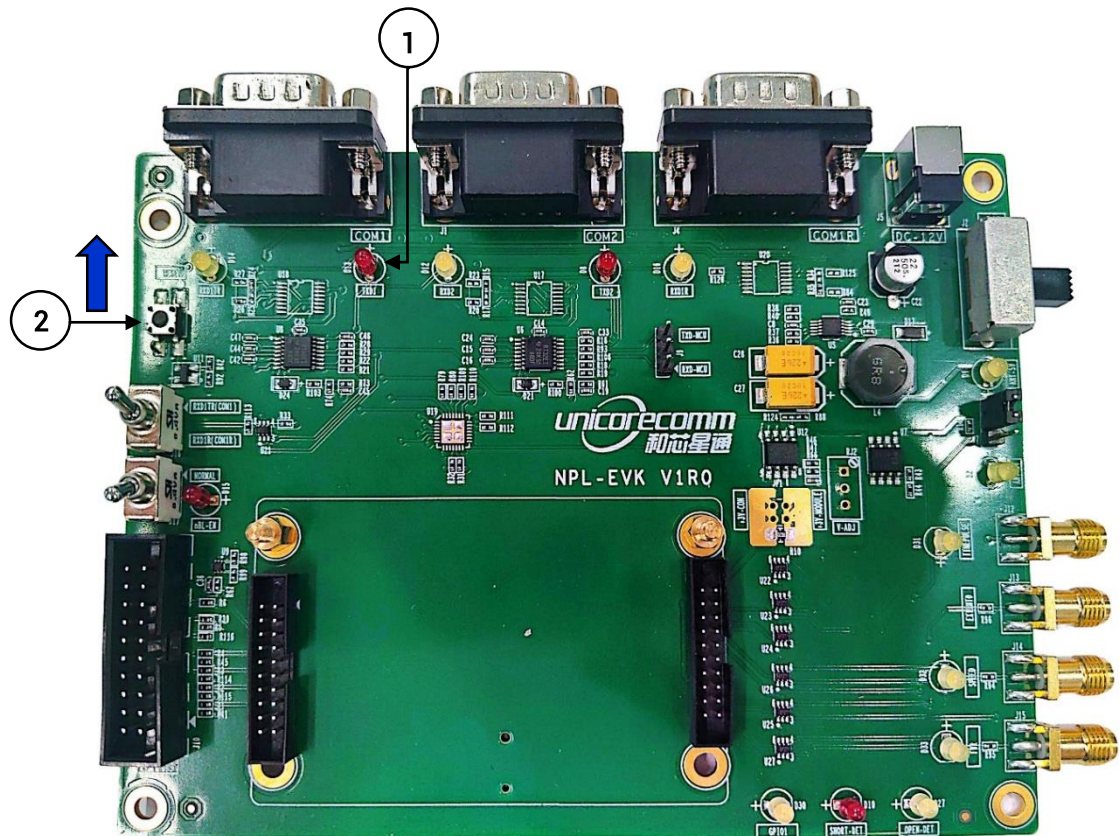


Figure 2-2 NPL-EVK Board

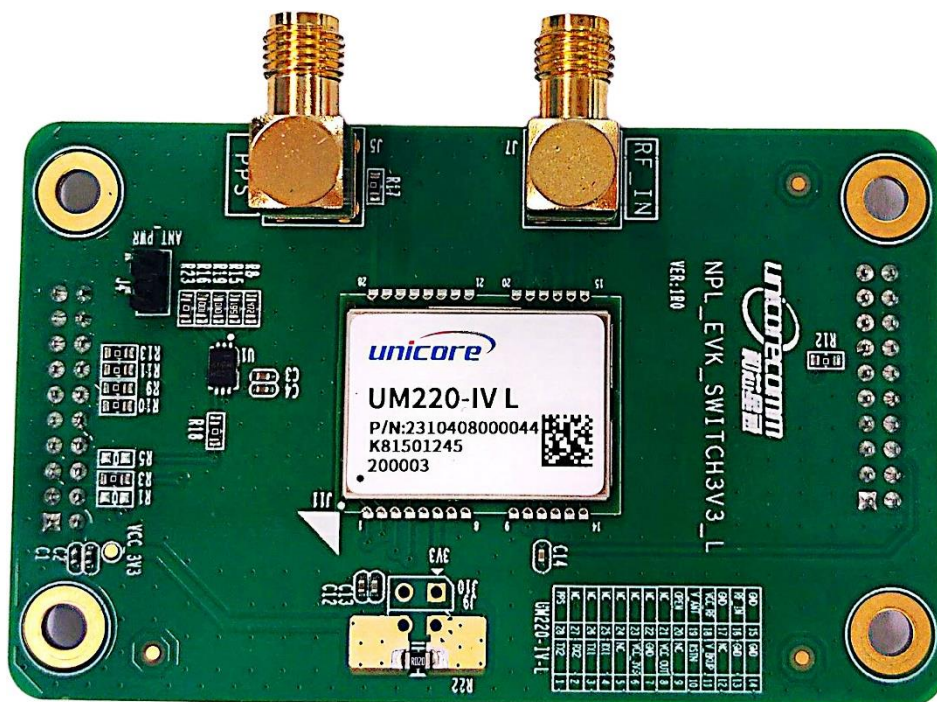


Figure 2-3 3V3-L Board

## 3 Interfaces

The interfaces of UM220-IV L EVK board are shown in Figure 2-1 UM220-IV L EVK Board, and the detailed description is shown in Table 3-1.

**Table 3-1 Interfaces of UM220-IV L EVK Board**

Interface	Type	Description
1	Power	+12V power adapter interface
2	Switch	Power on/off
3	Serial Port	COM1, for both data transmission and upgrade
4	Serial Port	COM2, for data transmission only
5	RESET	System reset
6	RF_IN	RF signal input; this interface connects to the antenna.
7	PPS	PPS port

## 4 Indicators

The indicators of UM220-IV L EVK board is shown in Figure 2-2 NPL-EVK Board, and the detailed description is shown in Table 4-1.

**Table 4-1 Indicators of UM220-IV L EVK Board**

Indicator	Description	Quantity
1	COM1 serial port indicator. The indicator goes on when data transmission is normal; the indicator goes off when data transmission is abnormal.	1

**Note:**

As shown in the Figure 2-2 NPL-EVK Board, before powering on the NPL-EVK board, move the switch ② to the direction of the serial ports to ensure normal data transmission.



## 5 Connection and Configuration

- Step1: Align the NPL\_EVK\_SWITCH3V3\_L board with the positioning holes and pins of NPL-EVK board, and install it on the NPL-EVK board.
- Step2: Referring to Figure 2-1 UM220-IV L EVK Board, connect the serial port, antenna and power.
- Step3: Install the jumper cap on J4 (ANT\_PWR) of NPL\_EVK\_SWITCH3V3\_L board to provide 3 V power supply for the antenna.

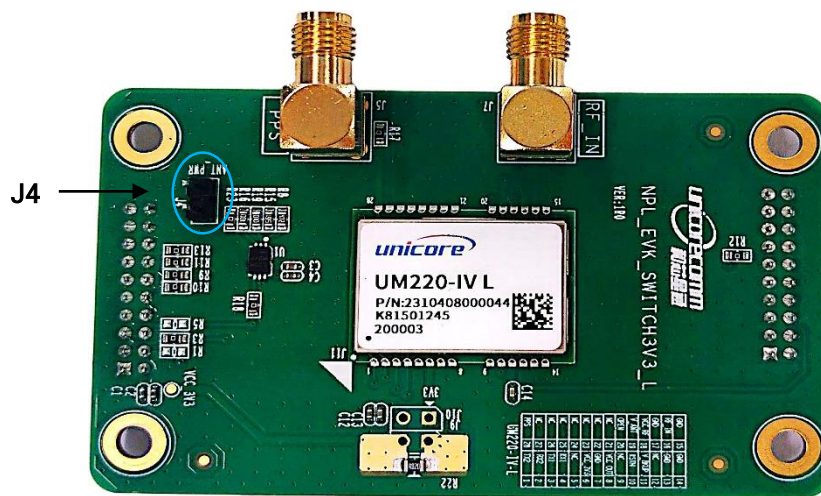


Figure 5-1 J4 on 3V3-L Board

- Step4: Move the switch ② of the NPL-EVK board to the direction of the serial ports, see Figure 2-2 NPL-EVK Board.
- Step5: Power on the UM220-IV L EVK board and input command: \$CFGANT,1 to enable the antenna feeding (antenna feeding is disabled by default).
- Step6: Save the configuration: \$CFGSAVE.

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