

SC200E&SC206E Series

HDMI OUT Reference Design

Smart Module Series

Version: 1.1

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Status: Released



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About the Document

Revision History

Version	Date	Author	Description
-	2024-04-30	Bayes YANG	Creation of the document
1.0	2024-05-08	Bayes YANG	First official release
1.1	2025-06-26	Wynna SHU	<ol style="list-style-type: none"> Added the reference design for pins GPIO_14 and GPIO_15; deleted the reference design for pins CAM0_I2C_SCL and CAM0_I2C_SDA (Sheet 3 and Sheet 6). Updated the resistance of R0630 from 10K to 0R (Sheet 6).

Contents

About the Document.....3

Contents.....4

1 Reference Design.....5

1.1. Introduction5

1.2. Schematics.....5

1 Reference Design

1.1. Introduction

This document provides the reference design for Quectel SC200E&SC206E series modules, including block diagram, power system block diagram, module interfaces, power supply and keypads, HDMI OUT design and USB Type-C interface.

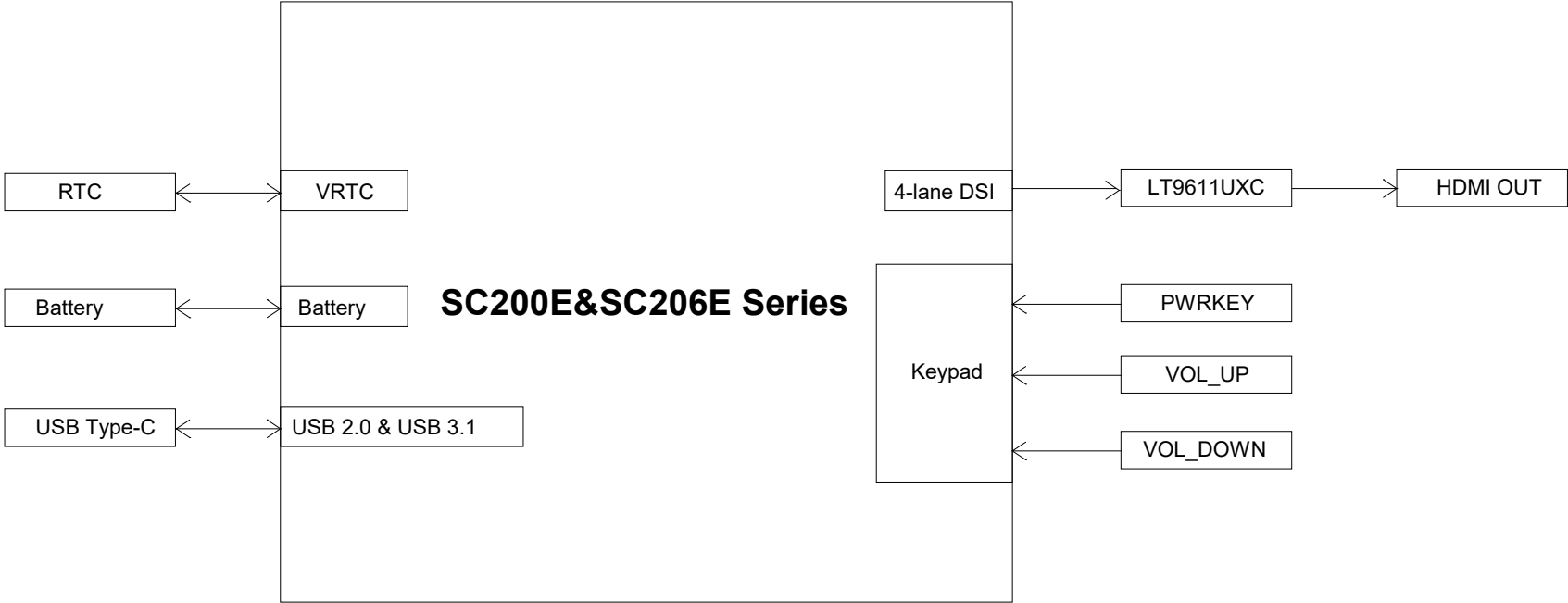
1.2. Schematics

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

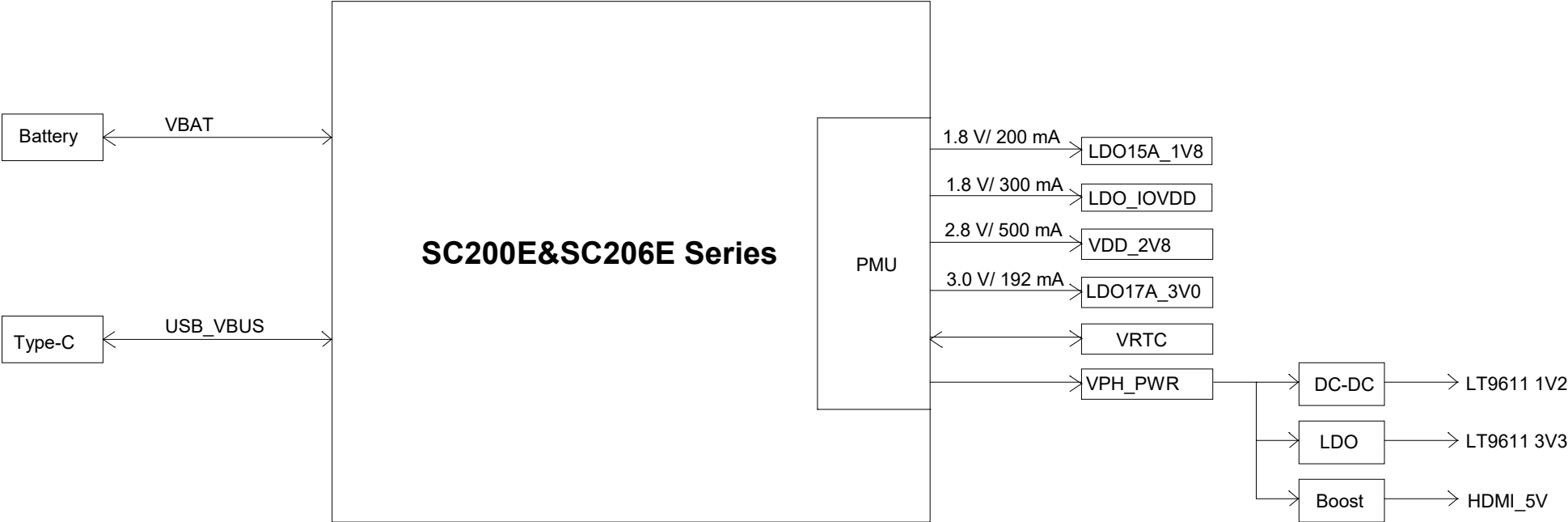
NOTE

It is required to confirm the applicability and price from the supplier about the IC involved in the reference design.

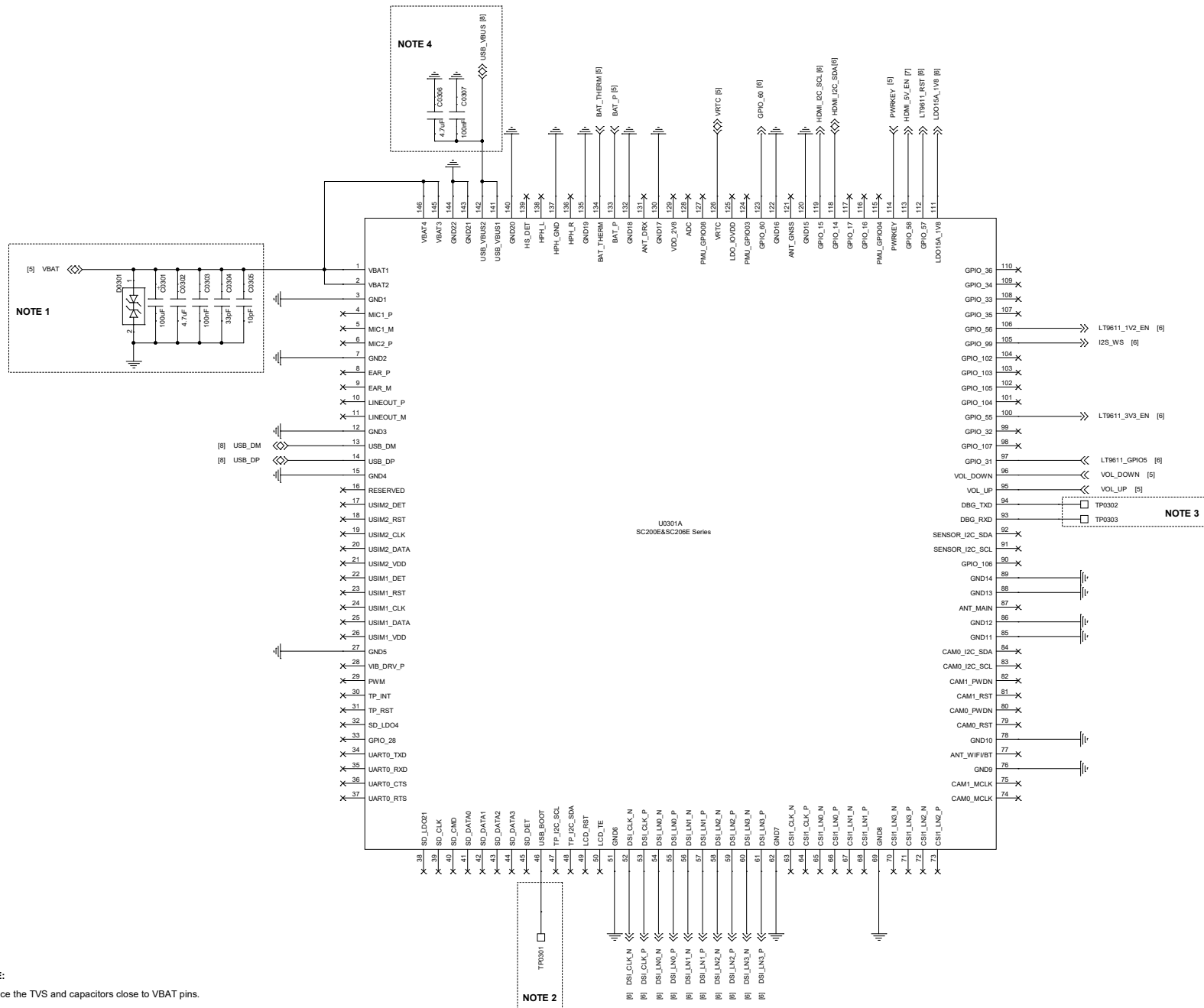
Block Diagram



Power System Block Diagram



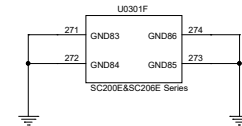
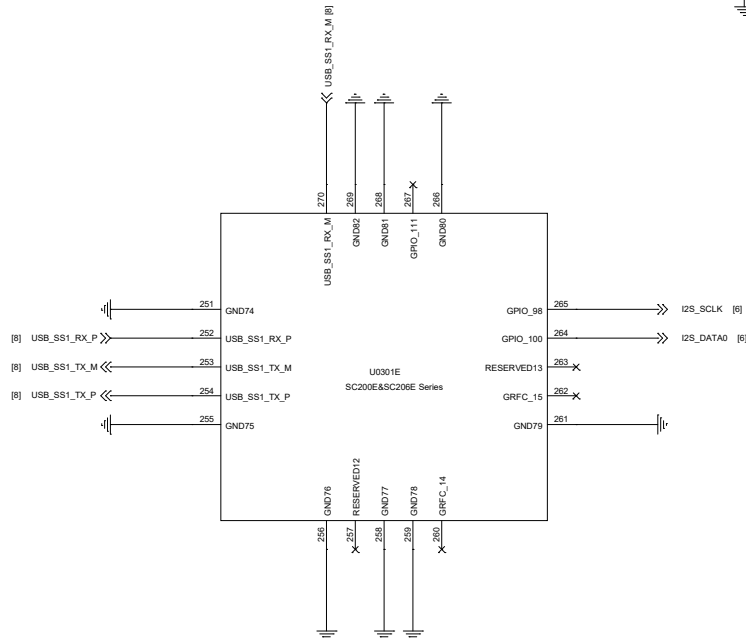
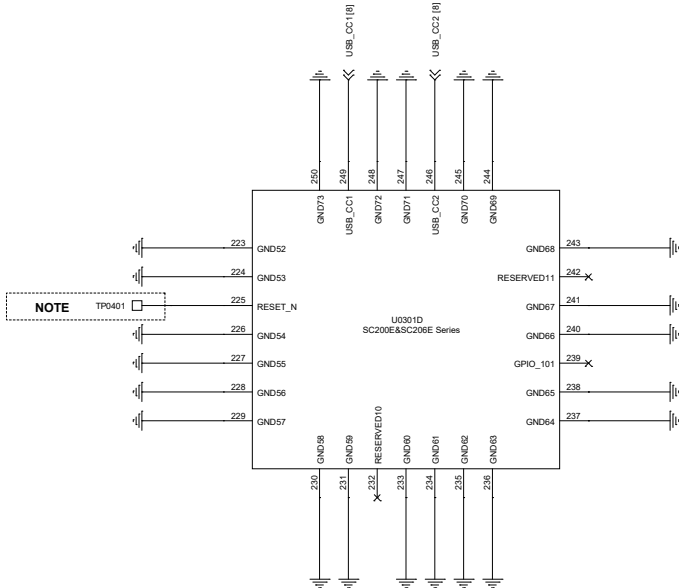
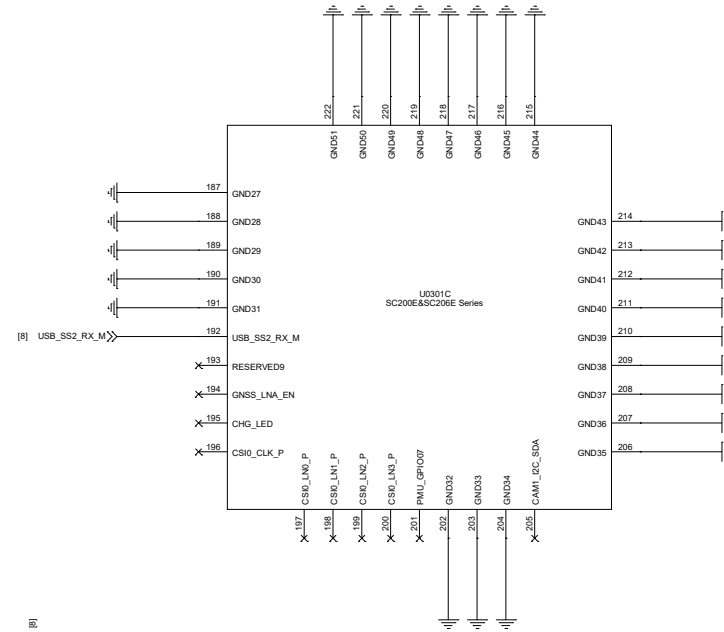
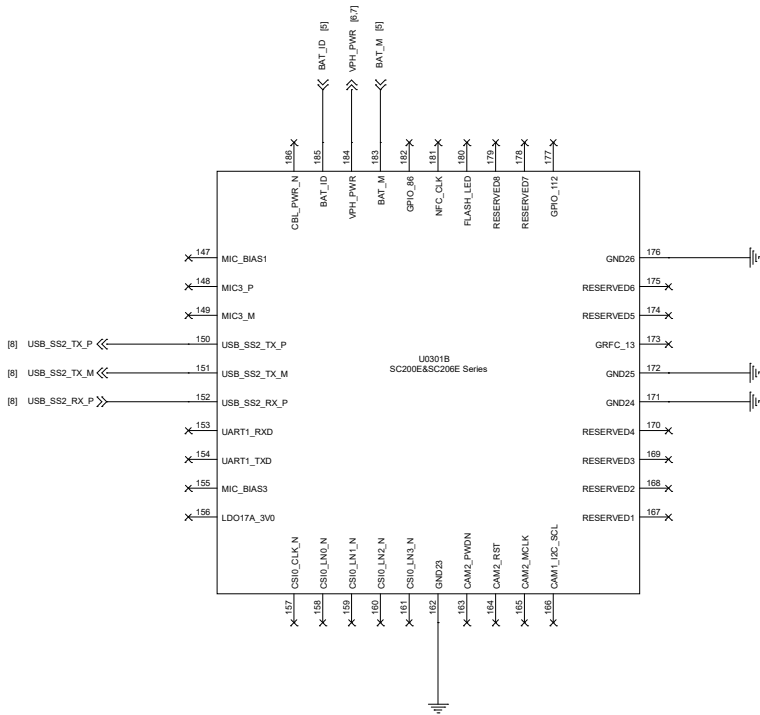
Module Interfaces (1)



NOTE:

1. Place the TVS and capacitors close to VBAT pins.
2. For USB_BOOT, a test point must be reserved.
3. For DBG_TXD and DBG_RXD, test points must be reserved.
4. The recommended parallel capacitors for pins 141 and 142 should be placed as close to the pins as possible.

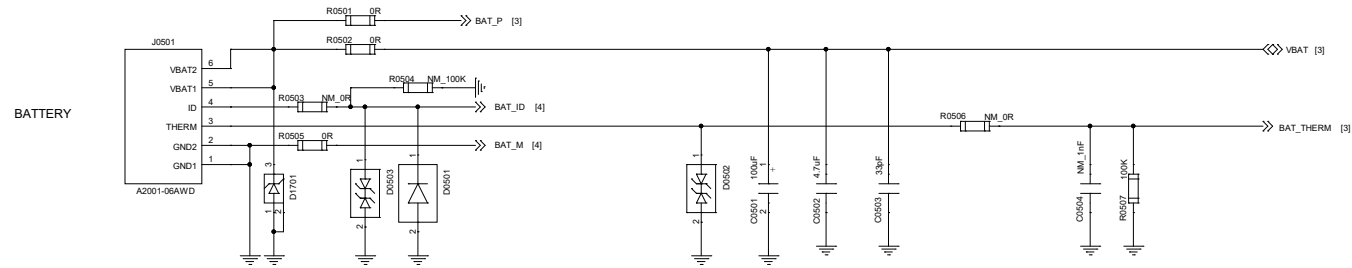
Module Interfaces (2)



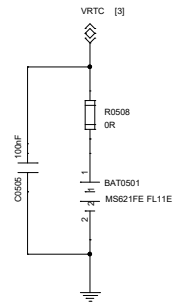
NOTE:
For RESET_N, a test point is recommended to be reserved.

Power Supply and Keypads

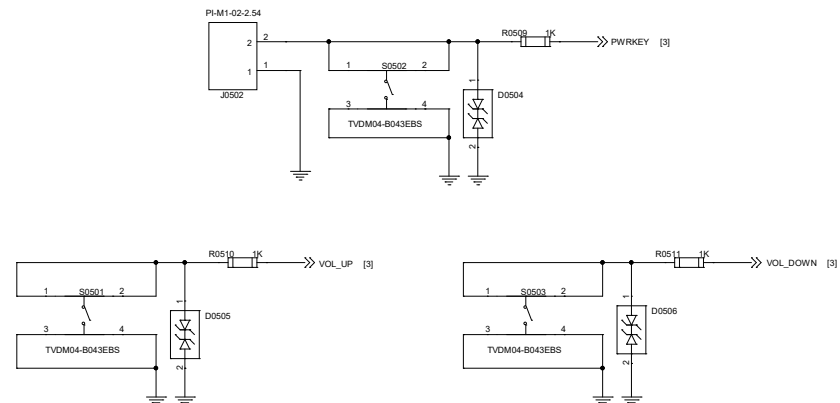
Power Supply



RTC



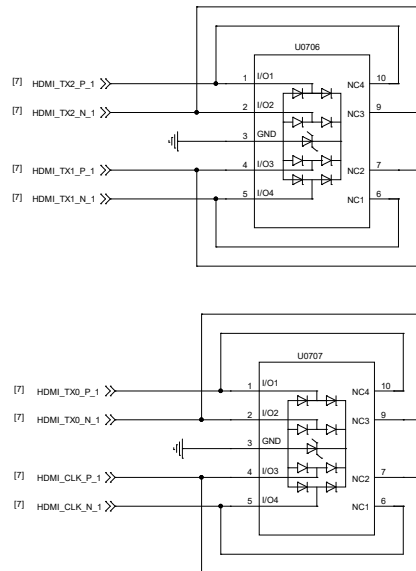
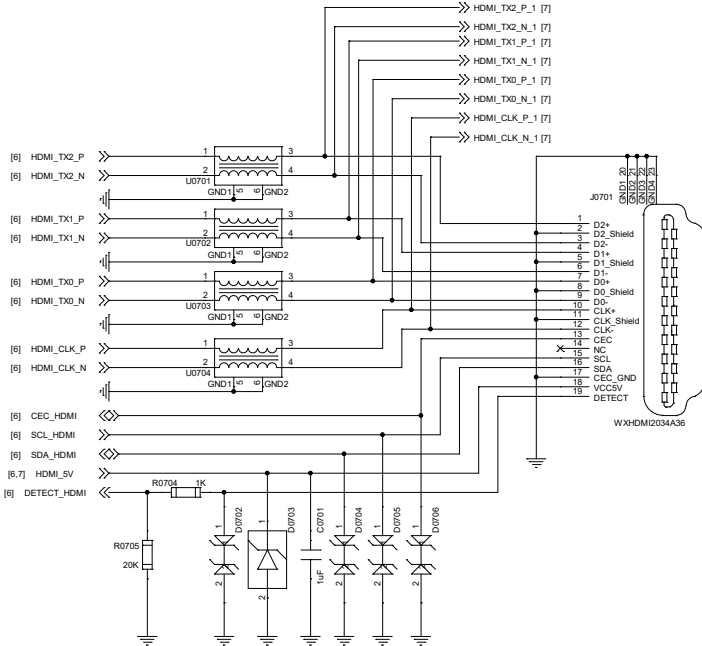
Keypads



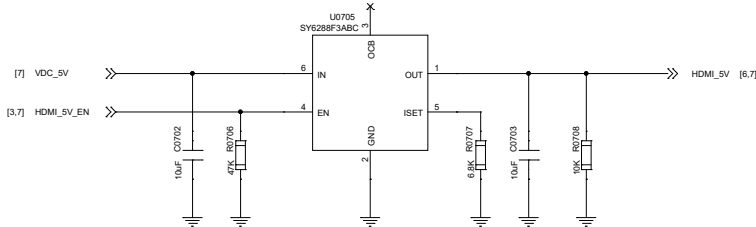
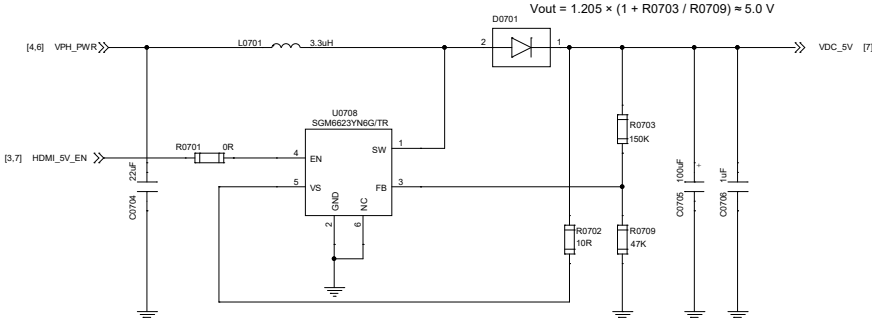
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PROJECT	SC200EASC200E Series	VER	1.1
DRAWN BY	Wyma SHU	CHECKED BY	Amin JIANG
DATE	2022-06-26	SHEET	5 OF 8

HDMI OUT Design (2)



HDMI 5 V Power



USB Type-C Interface

USB Type-C

ESD

PROJECT		VER
SC200EASC200E Series		1.1
DRAWN BY	CHECKED BY	SIZE
Wyma SHU	Amin JANG	A2
DATE	2022-06-26	SHEET 8 OF 8

