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CERT. No.: 282Q19070712006



CERT. No.: 282E19070712007

Product Specification

Model: TBG076HD-01

HDMI to MIPI

Display Board

This module uses ROHS material

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1.General Description/概述

TBG076HD-01 is a high performance HDMI-to-MIPI video converter. It integrates an HDMI 1.4 receiver and a dual-mode MIPI CSI/DSI transmitter with MIPI D-PHY, and a USB capacitive touch(optional).

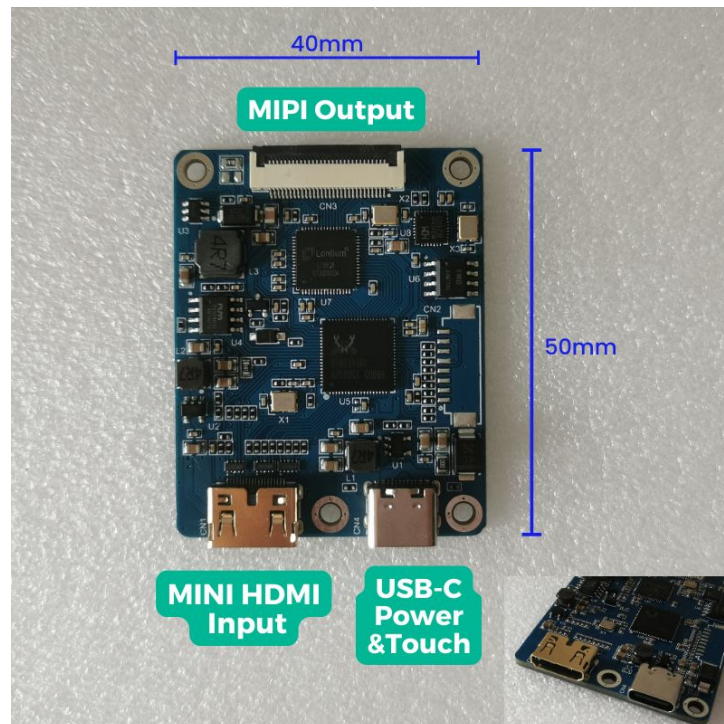
TBG076HD-01 是一款高性能 HDMI 转 MIPI 视频转接板, 集成一个 HDMI1.4 输入, MIPI CSI/DSI 输出, USB 电容触摸 (可选)。

2.Features/特性

Function/功能	Description/描述
Signal Input/信号输入	HDMI 1.4 (mini HDMI)
Signal Output/信号输出	dual-mode MIPI CSI/DSI
Power Supply/电源	5V DC, 待机时 0.1W, 单板工作时 0.7W
Backlight/背光	80mA Max/最大 80mA

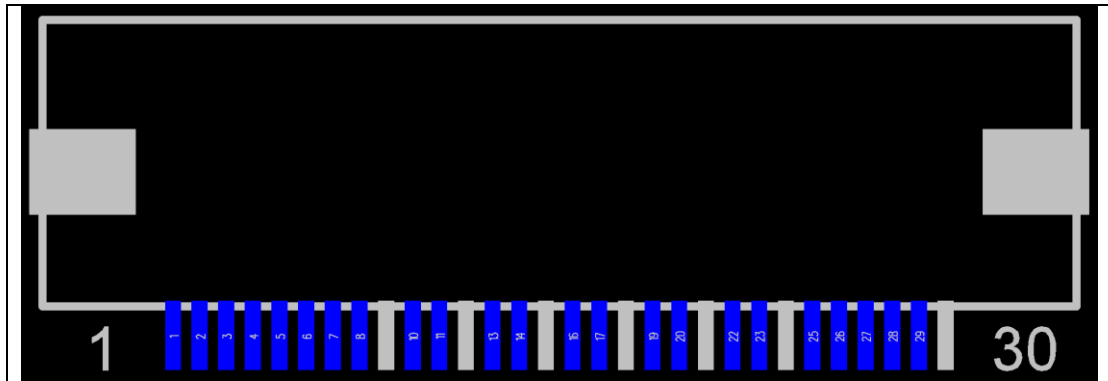
3.Interface Function/接口功能

Connector No./位号	Descriptions/描述
CN6	Power & Touch Input/Type-C 电源和触摸接口
CN2	mini HDMI Input/mini HDMI 输入
J3	MIPI output/MIPI 输出



4.Interface Descriptions/接口定义

4.1 J3: MIPI Output (0.5mm 30pin FPC)



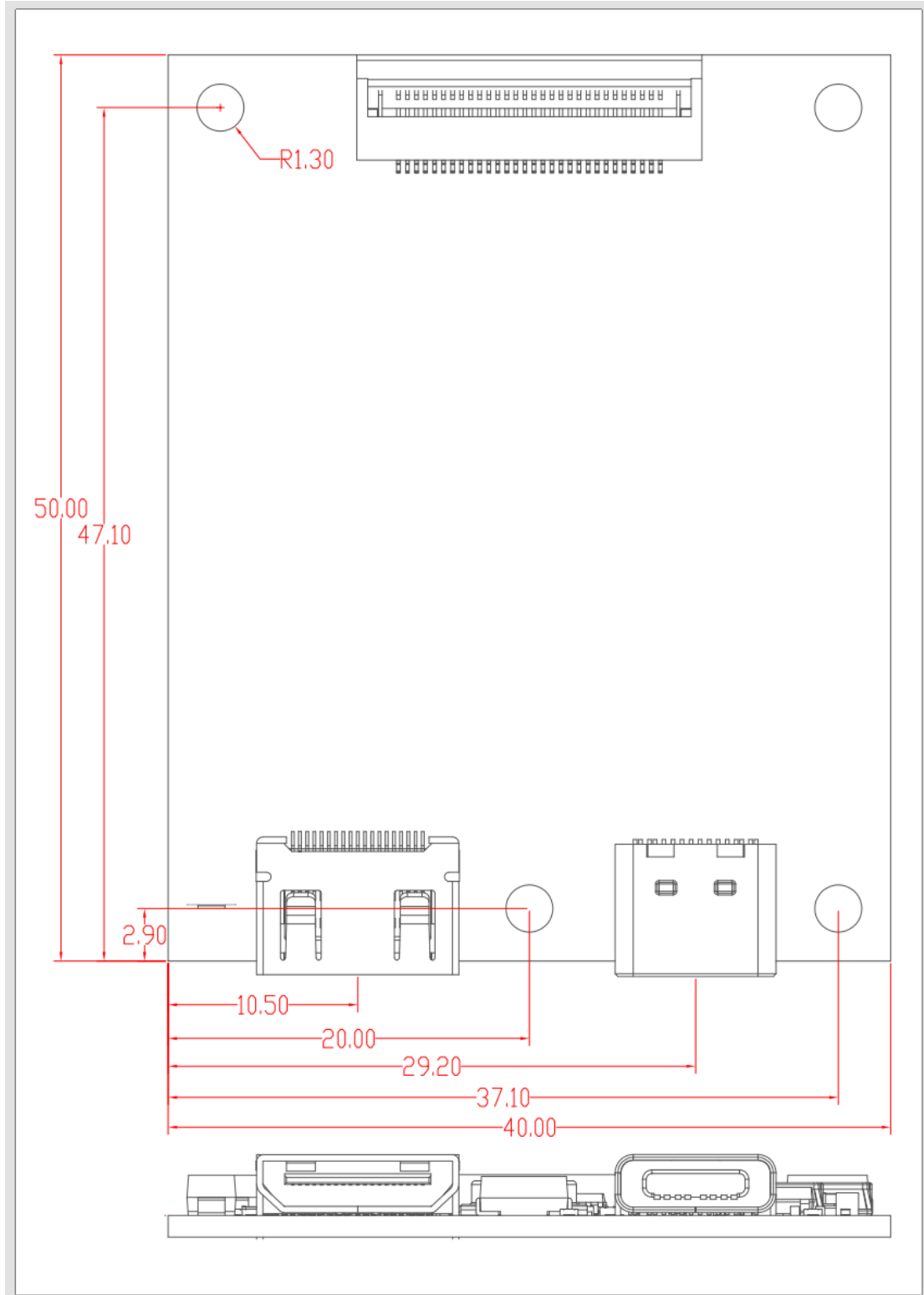
Pin NO./编号	Symbol/定义	Description/功能描述
1	LEDA	Backlight Anode
2	LEDK	Backlight Cathode
3	LEDK	Backlight Cathode
4	VCC	Panel Power Supply
5	VCC	Panel Power Supply
6	RESET	Panel Reset
7	NC	NC
8	NC	NC
9	GND	Ground
10	MIPI_D0P	MIPI Data Lane 0 Positive Output Pin
11	MIPI_D0N	MIPI Data Lane 0 Negative Output Pin
12	GND	Ground
13	MIPI_D1P	MIPI Data Lane 1 Positive Output Pin
14	MIPI_D1N	MIPI Data Lane 1 Negative Output Pin
15	GND	Ground
16	MIPI_CLKP	MIPI Clock Lane Positive Output Pin
17	MIPI_CLKN	MIPI Clock Lane Negative Output Pin
18	GND	Ground
19	MIPI_D2P	MIPI Data Lane 2 Positive Output Pin
20	MIPI_D2N	MIPI Data Lane 2 Negative Output Pin

21	GND	Ground
22	MIPI_D3P	MIPI Data Lane 3 Positive Output Pin
23	MIPI_D3N	MIPI Data Lane 3 Negative Output Pin
24	GND	Ground
25	TP_INT	CTP INT
26	TP_SDA	CTP SDA
27	TP_SCL	CTP SCL
28	TP_RST	CTP RST
29	TP_VCC	CTP VCC
30	GND	Ground

5.Mechanical Specifications/结构尺寸

Controlling Dimension: Millimeter(mm)

Tolerance: $\pm 0.3\text{mm}$



6. Operating & Storage Range/工作存储条件

- Relative humidity: $\leq 80\%$
- Temperature Storage Range: $-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$; 相对湿度 5-85%
- Temperature Operating Range: $0^{\circ}\text{C} \sim +70^{\circ}\text{C}$; 相对湿度 20-80%

7. Notes/注意事项

- Keep the circuit board away from strong static electricity.
- Pay attention to check the direction of the connection line and whether the screen voltage is correct before powering on, otherwise the LCD module will be damaged.
- Avoid metal falling into the circuit board while the circuit board is working.
- Do not push or pull the connector while the circuit board is working.
- Do not disassemble the module.
- If the surface of the motherboard is very dirty, clean it with a soft cloth (not wet cloth).
- 保持电路板远离强静电。
- 注意检测连接线的方向及屏电压是否正确后再通电，否则会损坏 LCD 模块。
- 在电路板工作时，避免金属掉落在电路板中。
- 请勿在电路板工作时推拉连接器。
- 请勿拆解模块。
- 如果主板表面很脏，请用软布（非湿布）清洁。

8. Revision History/修改记录

Revision No.	Date	Description
V1.0	2023-07-24	Initial Release
V2.0	2024-09-24	Component layout change