

SLG46857-AP DIP Adapter

Abstract

This document describes the DIP Adapter SLG46857-AP functionality and provides a quick start guide.

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1. Terms and Definitions

DIPA DIP Adapter SLG46857-AP
GPI General Purpose Input
GPIO General Purpose Input/Output

IC Integrated Circuit
SA Socket Adapter

TP Test point

2. References

[1] SLG46857-A, Datasheet, Renesas Electronics.

3. Introduction and Board Overview

DIPA is a compact, easy-to-use hardware tool that provides SLG46857-AP IC hardware support for design emulation, programming, and real-time testing. DIPA is controlled by Go Configure Hub software with emulation and IC programming.

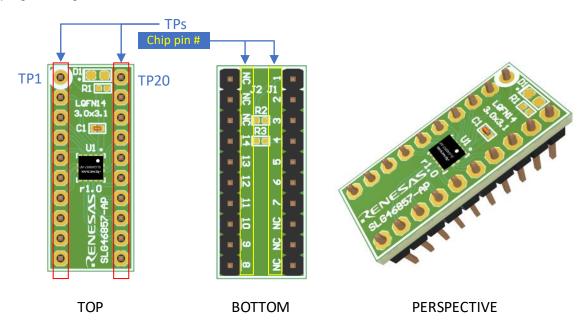


Figure 1. DIPA Views

Table 1. DIPA Pinout Description

| Chip pin # | Chip pin name | SA connector J1 pin # | Pin Functions |
|------------|---------------|-----------------------|---------------------------------|
| 1 | VDD | TP1 | Power Supply |
| 2 | GPI0 | TP2 | GPI, SLA_0 |
| 3 | GPIO0 | TP3 | GPIO, SCL |
| 4 | GPIO1 | TP4 | GPIO, SDA |
| 5 | GPIO2 | TP5 | GPIO with OE, EXT_Vref0, SLA_1 |
| 6 | GPIO3 | TP6 | GPIO with OE |
| 7 | GPO0 | TP7 | GPO, EXT_Vref1 |
| 8 | GND | TP11 | Ground |
| 9 | GPIO4 | TP12 | GPIO with OE, ACMP0_H+, SLA_2 |
| 10 | GPIO5 | TP13 | GPIO with OE, ACMP1_H+, SLA_3 |
| 11 | GPIO6 | TP14 | GPIO with OE, ACMP2_L+ |
| 12 | GPIO7 | TP15 | GPIO with OE, ACMP3_L+ |
| 13 | GPIO8 | TP16 | GPIO with OE, Vref0_OUT, TS_OUT |
| 14 | GPIO9 | TP17 | GPIO with OE, Vref1_OUT |

4. Design Emulation, Programming, and Real-Time Testing

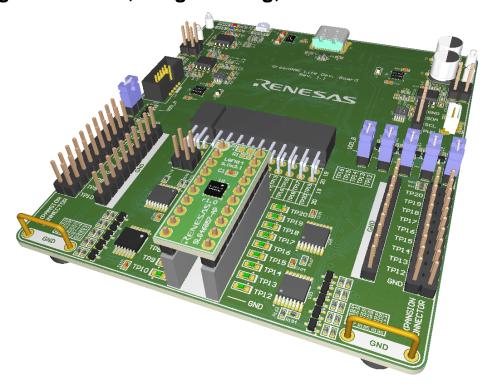
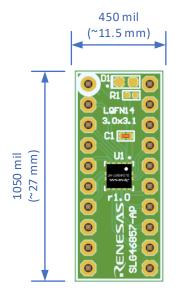


Figure 2. Light Development Board with DIPA

5. Board Dimensions



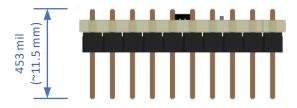
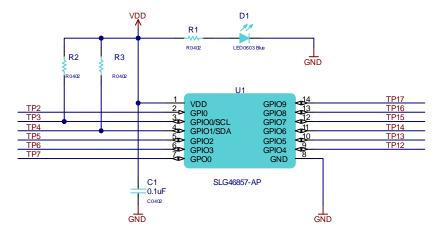


Figure 3. Board Assembly Top View Dimensions

Figure 4. Board Assembly Side View Dimensions

6. Schematic Diagrams



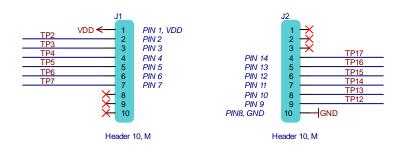


Figure 5. DIPA Board Schematic

Note:

D1, R1 are optional (not mounted by default). Can be used for power presence indication.

R2, R3 are optional (not mounted by default). I2C pull-ups.

7. Bill of Materials

| # | Designator | Manufacturer Part Number | Manufacturer 1 | Quantity |
|---|------------|--------------------------|-----------------------------|----------|
| 1 | C1 | C1005X7R1H104K050BB | TDK | 1 |
| 2 | J1, J2 | PH1-10-UA | Adam Equipment | 2 |
| 3 | U1 | SLG46857-AP | Renesas Electronics America | 1 |
| | | | | |
| | Optional | | | |
| 1 | D1 | SMD LED 0603 | - | 1 |
| 2 | R1 | SMD RES 0402 1k | - | 1 |
| 3 | R2, R3 | SMD RES 0402 5.1k | - | 2 |

8. Revision History

| Revision | Date | Description | |
|----------|--------------|-----------------|--|
| 1.00 | Aug 13, 2022 | Initial release | |

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