

SLG47105V Socket Adapter GreenPAK TQFN-20 #5

This document describes the functionality of the SLG47105V Socket Adapter GreenPAK TQFN-20 #5 and provides a quick start guide.

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1. Introduction and Board Overview

The Socket Adapter GreenPAK TQFN-20 #5 is a compact, easy-to-use hardware tool that provides hardware support for the SLG47105V IC, enabling design emulation, programming, and real-time testing. The socket adapter is plugged into one of the development boards, which in its turn is controlled by the Go Configure Hub software ([2]) for both emulation and IC programming.

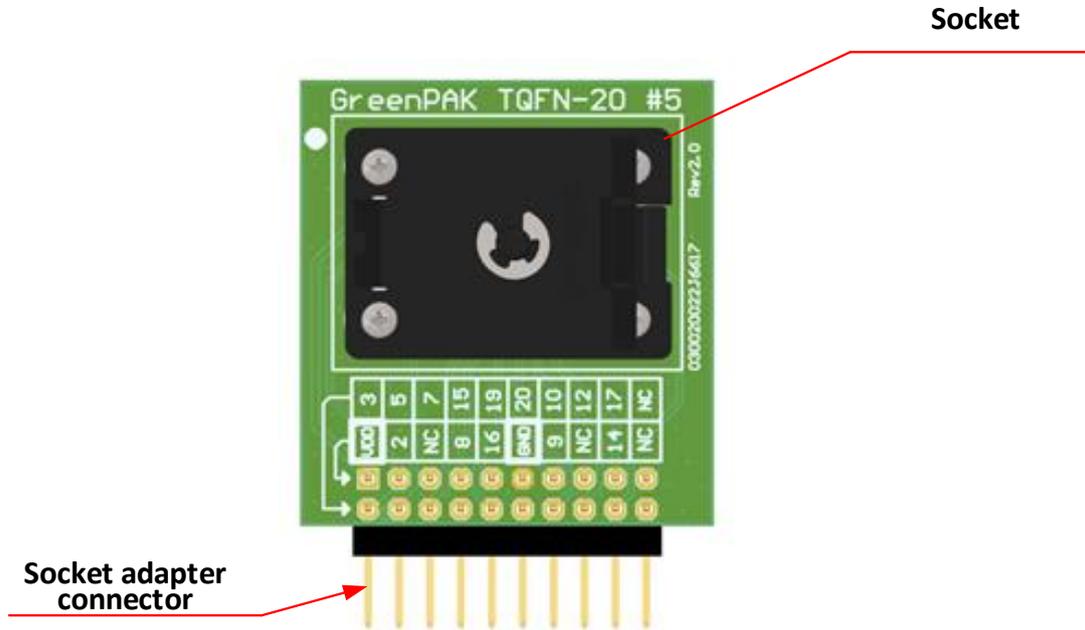


Figure 1. Socket Adapter Pinout Description

Note 1: PIN1 (VDD), PIN6 (VDD2_A), and PIN11 (VDD2_B) are connected in the TQFN-20 #5 socket adapter. Therefore, the maximum operating conditions for VDD2_A and VDD2_B high-voltage groups are limited to those of the VDD group.

Note 2: PIN4 (GND_HV), PIN13 (GND_HV), and PIN18 (GND) are connected in the TQFN-20 #5 socket adapter.

Note 3: The TQFN-20 #5 socket adapter is intended only for functional testing without high voltage or high current load.

1.1 Electrical Specifications

The SLG47105V Socket Adapter GreenPAK TQFN-20 #5 maximum ratings are:

- Maximum V_{DD} voltage: 50 V
- Maximum current rating: 1 A per pin

SLG47105V Socket Adapter GreenPAK TQFN-20 #5

1.2 Pinout

Table 1. Socket Adapter Pinout Description

Chip Pin #	SA Connector J1 Pin #	Pin Functions
1	VDD	Power Supply
2	TP3	GPIO, Vref OUT, Diff Amp Vset Input, TS_OUT
3	TP2	GPI, EXT_Vref0, SLA_0
4	GND	Analog Ground
5	TP4	Winding A Sense, relate to HV_GPO0_HD, HV_GPO1_HD
6	VDD	High Voltage Power Supply
7	TP6	HV_GPO0_HD
8	TP7	HV_GPO1_HD
9	TP13	HV_GPO2_HD
10	TP14	HV_GPO3_HD
11	VDD	High Voltage Power Supply
12	TP16	Winding B Sense, relate to HV_GPO2_HD, HV_GPO3_HD
13	GND	Analog Ground
14	TP17	GPIO, SLA_1, EXT_CLK for OSC0 or Current Sense CMP0 EXT_Vref
15	TP8	SCL, GPIO
16	TP9	SDA, GPIO
17	TP18	GPIO, EXT_Vref1, SLA_2, EXT_CLK for OSC1 or Current Sense CMP1 EXT_Vref
18	GND	General Ground
19	TP10	GPIO, ACMP0_H
20	TP12	GPIO, SLA_3, ACMP1_H

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

To use the socket adapter, it is necessary to place the SLG47105V into it and then connect the socket to the Advanced Development Board or Light Development Board (see **Figure 2** and **Figure 3**).

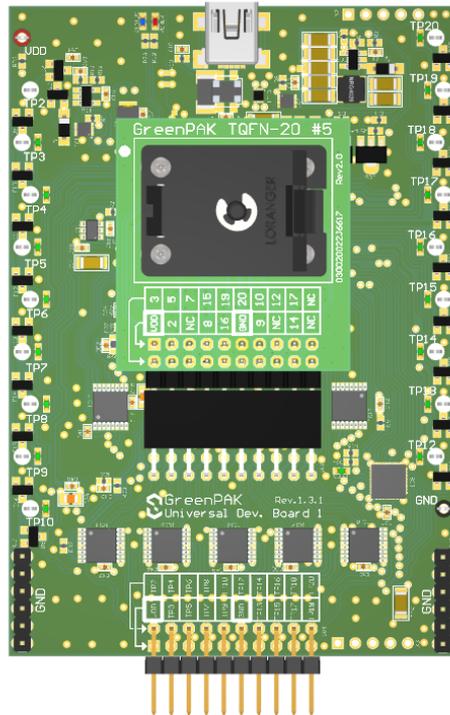


Figure 2. Using Advanced Development Board

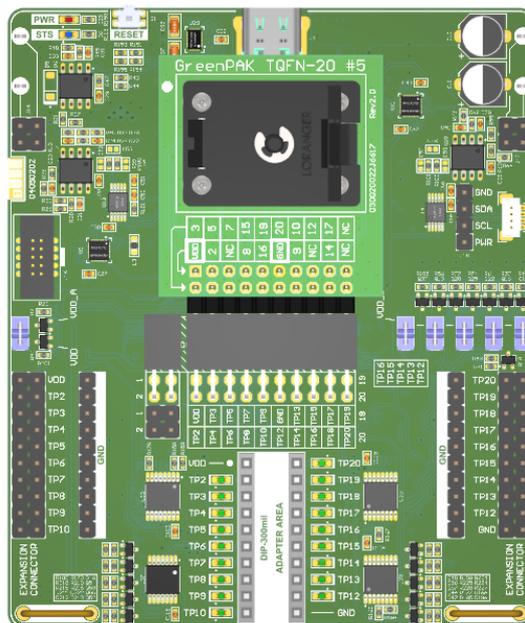


Figure 3. Using Light Development Board

3. Board Dimensions

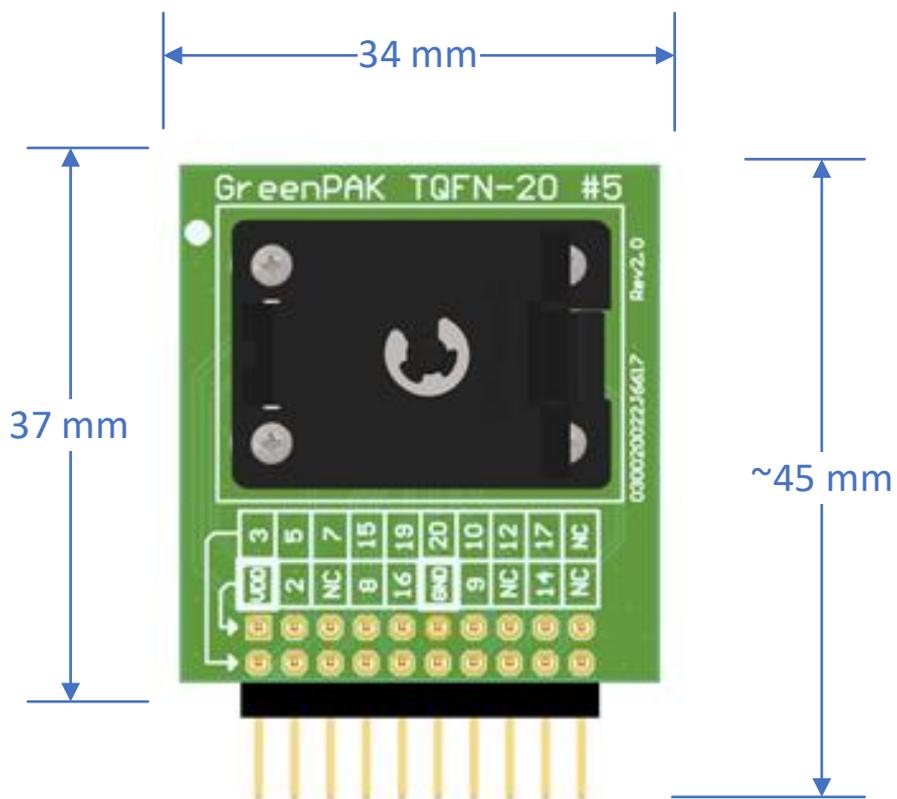
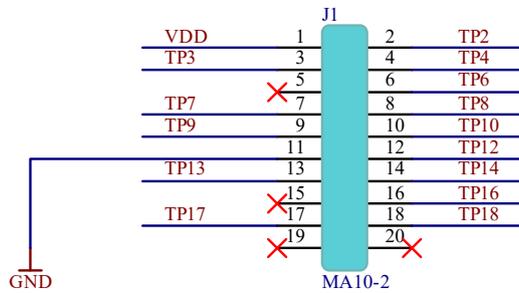
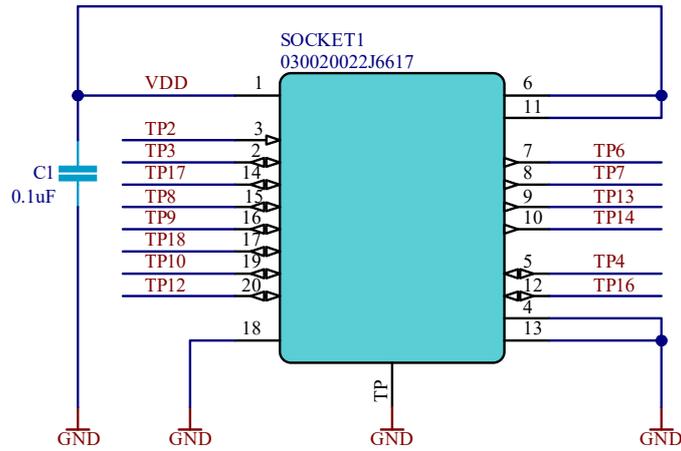


Figure 4. Board Assembly Top View Dimensions



Figure 5. Board Assembly Side View Dimensions

4. Schematic Diagrams



5. Bill of Materials

#	Designator	Name	Manufacturer Part Number	Manufacturer 1	Quantity
1	BP1	SJ61A6	7010334512	3M	1
2	C1	0.1 µF 10 % 50 V X7R 0402	CL05F104ZO5NNNC	Samsung	1
3	J1	68021-220HLF	68021-220HLF	Amphenol ICC / FCI	1
4	SOCKET1	TQFN-20, 2 mm x 3 mm	030020022J6617	Loranger	1

6. Terms and Definitions

GPIO	General Purpose Input/Output
IC	Integrated Circuit
SA	Socket Adapter
TP	Test point

7. References

- [1] [SLG47105](#), Datasheet, Renesas Electronics.
- [2] [Go Configure Software Hub](#), Software Download, and User Guide.

8. Ordering Information

Part Number	Description
SLG4SA20HV-20x30	GreenPAK TQFN-20 #5 Socket Adapter
SLG47105V-SKT	SLG4SA20HV-20x30 socket adapter, 50 SLG47105V samples

9. Revision History

Revision	Date	Description
1.03	Feb 23, 2026	Corrected Socket Adapter Pinout Description table
1.02	Feb 19, 2026	Corrected Ordering Information
1.01	Feb 16, 2026	Added Ordering Information Added socket adapter Electrical specification Corrected socket description in Introduction and Board Overview section Added description to Design Emulation, Programming, and Real-Time Testing section
1.00	Jan 14, 2026	Initial release.

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