

GreenPAK™

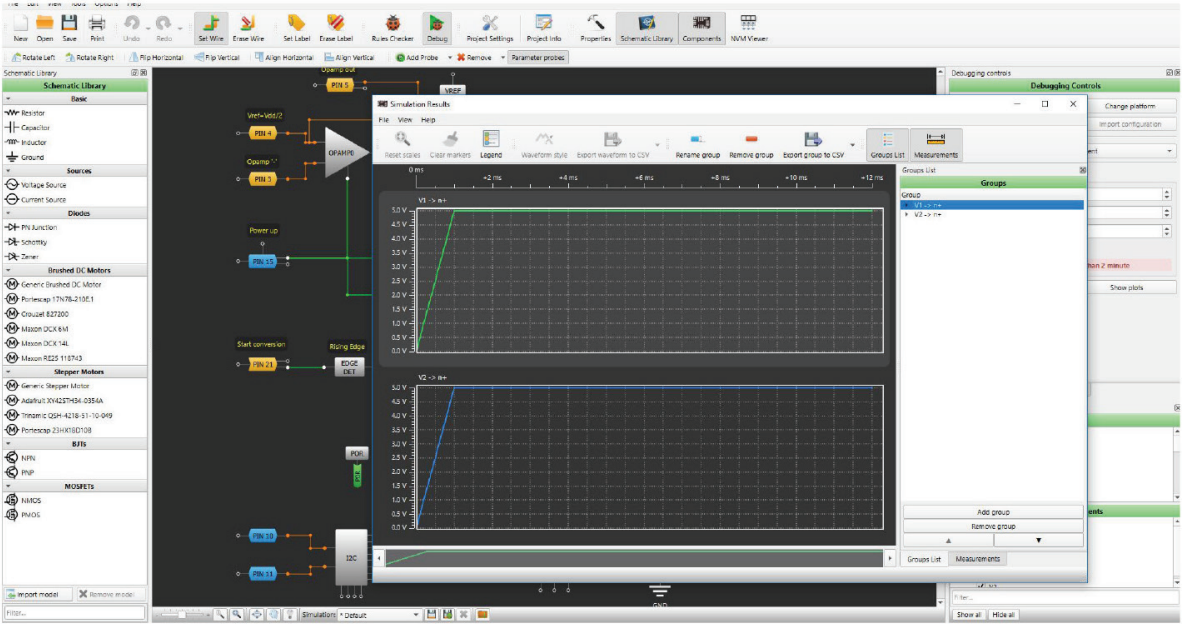
Configurable Mixed-Signal Matrix



开发软件

瑞萨的 Go Configure™ 软件中心开发软件提供完全图形化的设计过程, 无需编程语言或编译器, 让设计人员可以在几分钟内配置、编程和测试自定义的 GreenPAK 样本。

- 类似原理图捕获的设计和布线
- 显示每个设备可用资源的完整组件库
- 易于配置的组件
- 示例项目和支持文档
- 支持与外部元件联动的仿真功能



Download Go Configure™ Software Hub

View the Software User Guide

Step 1

Place unprogrammed GreenPAK into socket

Step 2

Design your IC with GreenPAK GUI

Step 3

Click **Program** to freeze GreenPAK's NVM

Step 4

Your custom IC is ready for use

GREENPAK 工具

有七种开发板可供工程师使用 GreenPAK 混合信号 IC 来开发他们的自定义设计。您可以从空白项目开始设计自己的工程, 或通过修改 Renesas 官网 [renesas.com](https://www.renesas.com) 提供的示例项目进行开发。

Board	Functions/Features
SLG4DVKLITE GreenPAK Lite 开发板	- 可在几分钟内完成自定义样品的烧录, 并兼容 DIP 封装和插座适配器 - 通过 USB Type-C 供电并进行通信 - 支持双 VDD ICs - 板上有 PIN LED 状态指示、上拉、下拉、GND、VDD - HHi-Z, VDD2, 和一个可编程的软件按钮 - 用于连接外部测试设备的门控扩展头
SLG4DVKADV GreenPAK Advanced开发板	- 使用任何 GreenPAK 器件, 在几分钟内即可烧录自定义样品 - USB接口 - 支持 MacOS、Windows 和 Linux - 烧录和仿真 - 带门控的扩展排针接口, 可连接外部测试设备 - 集成信号与逻辑发生器, 配备 LED 进行可视化指示
SLG4DVKGSD GreenPAK 串行调试器板	- 支持通过 I²C 对所有 GreenPAK 器件进行串行调试 - USB 接口用于供电和控制 - 带有 I²C 接口的 4 针连接头, 用于与目标系统连接 - 支持 MacOS、Windows 和 Linux - 为 SLG46824、SLG46826 和 SLG47004 提供串行烧录支持
SLG47105V-DMO HVPAK™ SLG47105直流/步进电机及 LED 控制演示板	HVPAK SLG47105 演示板用于测试基于 SLG47105 的设计, 该芯片内置了直流电机, 步进电机和 LED控制器
SLG47003V-DMO AnalogPAK SLG47003开发板	- 通过 USB Type-C 接口为外部电路板供电 - 支持 GreenPAK 串行调试器 - 支持GreenPAK Advanced 开发板 - 支持GreenPAK Lite 开发板 - 兼容 Go Configure 软件中心 - 两个测试点 (TS), 用于内部运算放大器的输出 - 用于调节原理图参数的编码器
SLG47011V-USBPWR-DMO AnalogPAK SLG47011V USB 电源演示板	- 支持 USB PD (电力传输) 协议(最高支持 20V, 5A) - 电压、电流、功率和温度测量 - 支持双向测量 (插头和插座方向均可) 128x32 OLED 单色显示屏 - 用于翻转显示和切换屏幕的按钮
SLG51003V-EVB SLG51003V Power GreenPAK评估板	- 带有开尔文感测的 LDO 输入输出连接器 - 每个 LDO 输入和输出通道配备射频连接器 - 通用输入输出 (GPIO) 连接器 - 支持GreenPAK串行调试板 - 支持 Power GreenPAK 开发主板

Configurable Mixed-Signal Matrix	SLG46108	SLG46110	SLG46120	SLG46140	SLG46169
Memory Type	OTP	OTP	OTP	OTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
# of GPIOs	6	8	10 *	12	12
Operating Voltage (V)	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5
Dual Supply (VDD2 1.8 V to VDD)	–	–	SLG46121 *	–	–
8-bit SAR ADC	–	–	–	–	–
Analog/Digital Comparators	–	2/0	2/0	2/3	2/3
Maximum Look Up Tables (LUTs)	10	10	16	16	18
Maximum Counters/Delays	4	4	4	4	7
Maximum DFF / Latch	4	4	8	6	6
PWMs	–	–	–	3	–
Pipe Delay	–	8-stage	8-stage	16-stage	16-stage
Programmable Delay	1	1	1	1	1
Internal Oscillator (Hz)	25 k / 2 M	25 k / 2 M	25 k / 2 M	1.7 k / 25 k / 2 M / 27 M	25 k / 2 M
Asynchronous State Machine	–	–	–	–	–
Communication Interface	–	–	–	SPI	–
QFN Part Number	SLG46108V	SLG46110V	SLG46120V SLG46121V	SLG46140V	SLG46169V
QFN Package Size (mm)	1.0 x 1.2 x 0.55, 0.4 pitch	1.6 x 1.6 x 0.55, 0.4 pitch	1.6 x 1.6 x 0.55, 0.4 pitch	1.6 x 2.0 x 0.55, 0.4 pitch	2.0 x 2.2 x 0.55, 0.4 pitch
Alternate Package Part Number	–	–	SLG46120P	–	–
Alternate Package Type and Size (mm)	–	–	STQFN 2.0 x 2.0 x 0.55, 0.5 pitch	–	–

Configurable Mixed-Signal Matrix	SLG46170	SLG46533	SLG46534	SLG46536	SLG46537
Memory Type	OTP	OTP	OTP	OTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
# of GPIOs	12	18	12 *	12	18 *
Operating Voltage (V)	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5
Dual Supply (VDD2 1.8 V to VDD)	–	–	SLG46535 *	–	SLG46538 *
8-bit SAR ADC	–	–	–	–	–
Analog/Digital Comparators	–	4/0	3/0	3/0	4/0
Maximum Look Up Tables (LUTs)	17	25	17	25	17
Maximum Counters/Delays	8	7	7	7	7
Maximum DFF / Latch	6	15	8	15	8
PWMs	–	–	–	–	–
Pipe Delay	16-stage	16-stage	16-stage	16-stage	16-stage
Programmable Delay	1	1	1	1	1
Internal Oscillator (Hz)	25 k / 2 M	25 k / 2 M / 25 M	25 k / 2 M / 25 M	25 k / 2 M / 25 M	25 k / 2 M / 25 M
Asynchronous State Machine	–	–	8-State	–	8-State
Communication Interface	–	I²C	I²C	I²C	I²C
QFN Part Number	SLG46170V	SLG46533V	SLG46534V SLG46535V	SLG46536V	SLG46537V SLG46538V
QFN Package Size (mm)	2.0 x 2.2 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 2.2 x 0.55, 0.4 pitch	2.0 x 2.2 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch
Alternate Package Part Number	–	SLG46533M	–	–	SLG46537M SLG46538M
Alternate Package Type and Size (mm)	–	MSTQFN 2.0 x 2.2 x 0.55, 0.4 pitch	–	–	MSTQFN 2.0 x 2.2 x 0.55, 0.4 pitch

*Dual Supply versions lose one GPIO for VDD2

Configurable Mixed-Signal Matrix	SLG46620	SLG46721	SLG46722	SLG46811	SLG46855
Memory Type	OTP	OTP	OTP	OTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
# of GPIOs	18 *	18	18	10	12
Operating Voltage (V)	1.8 to 5.5	1.8 to 5.5	1.8 to 5.5	2.3 to 5.5	2.3 to 5.5
Dual Supply (VDD2 1.8 V to VDD)	SLG46621 *	–	–	–	–
8-bit SAR ADC	1	–	–	–	–
Analog/Digital Comparators	6/3	4/0	–	1(4)/0	4/0
Maximum Look Up Tables (LUTs)	26	18	17	18	23
Maximum Counters/Delays	10	7	8	6	8
Maximum DFF / Latch	12	6	6	17	21
PWMs	3	–	–	–	–
Pipe Delay	2 x 16-stage	16-stage	16-stage	4 Shift Registers	16-stage
Programmable Delay	2	1	1	1	1
Internal Oscillator (Hz)	1.7 k / 25 k / 2 M / 27 M	25 k / 2 M	25 k / 2 M	2 k / 10 k / 25 M	2 k / 2 M / 25 M
Asynchronous State Machine	–	–	–	–	–
Communication Interface	SPI	–	–	–	I²C
QFN Part Number	SLG46620V SLG46621V	SLG46721V	SLG46722V	SLG46811V	SLG46855V
QFN Package Size (mm)	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	1.6 x 1.6 x 0.55, 0.4 pitch	1.6 x 2.0 x 0.55, 0.4 pitch
Alternate Package Part Number	SLG46620G	–	–	–	–
Alternate Package Type and Size (mm)	TSSOP 6.5 x 6.4 x 1.2, 0.65 pitch	–	–	–	–

Configurable Mixed-Signal Matrix	SLG46824	SLG46826	SLG46880	SLG46881	SLG47512 SLG47513	SLG47525 SLG47528
Memory Type	MTP	MTP	OTP	OTP	OTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
# of GPIOs	17	17	28	28	10 (SLG47512) 14 (SLG47513)	17/11
Operating Voltage (V)	2.3 to 5.0	2.3 to 5.0	2.3 to 5.0	2.3 to 5.0	1.0 to 1.65	1.71 to 5.5
Dual Supply (VDD2 1.8 V to VDD)	1.71 to VDD	1.71 to VDD	2.3 to 5.0	0.95 to 1.98	–	0.95 to 1.98
8-bit SAR ADC	–	–	–	–	–	–
Analog/Digital Comparators	2/0	4/0	5/0	5/0	2/0	4
Maximum Look Up Tables (LUTs)	19	19	12	12	23	17
Maximum Counters/Delays	8	8	5	5	8	7
Maximum DFF / Latch	17	17	5	5	15	8
PWMs	–	–	–	–	–	–
Pipe Delay	16-stage	16-stage	16-stage	16-stage	14 Shift Registers	16-stage
Programmable Delay	1	1	1	1	1	1
Internal Oscillator (Hz)	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 25 M	25 k / 2 M / 25 M
Asynchronous State Machine	–	–	12-State	12-State	–	8-State
Communication Interface	I²C	I²C	I²C	I²C	I²C	I²C
QFN Part Number	SLG46824V	SLG46826V	SLG46880V	SLG46881V	SLG47512V	SLG47525V
QFN Package Size (mm)	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	4.0 x 4.0 x 0.55, 0.4 pitch	4.0 x 4.0 x 0.55, 0.4 pitch	1.6 x 1.6 x 0.55, 0.4 mm pitch	2.0 x 2.2 x 0.55, 0.4 pitch
Alternate Package Part Number	SLG46824G	SLG46826G	–	–	SLG47513M	SLG47528V
Alternate Package Type and Size (mm)	TSSOP 6.5 x 6.4 x 1.2, 0.65 pitch	TSSOP 6.5 x 6.4 x 1.2, 0.65 pitch	–	–	MSTQFN 1.6 x 1.6 x 0.55, 0.4 mm pitch	STQFN 2.0 x 3.0 x 0.55, 0.4 pitch

* Dual Supply versions lose one GPIO for VDD2

GreenPAK with Extended Temperature Range	SLG47105-EV	SLG47115-EV	SLG46620-EV	SLG46826-EV	SLG46855-EV	SLG46108-EV
Temperature Range	-40 to +105	-40 to +105	-40 to +105	-40 to +105	-40 to +105	-40 to +105
Memory Type	OTP	OTP	OTP	MTP	OTP	OTP
# of Pins / # of GPIOs	20/8 + 4 x HD	20/8 + 2 x HD	20/18	20/17	14/12	8/6
Operating Voltage, VDD (V)	2.3 to 5.5	2.3 to 5.5	1.8 to 5.0	2.3 to 5.5	2.3 to 5.5	1.71 to 5.5
Dual Supply, VDD2 (V)	3.0 to 13.2	4.5 to 26.4	—	1.71 to VDD	—	—
Analog/Digital Comparators	4/0	3/0	6/3	4/0	4/0	—
Voltage Reference	Trimmed	Trimmed	Trimmed	Trimmed	Trimmed	—
Combo Function Macro-cells	12 Total	12 Total	2 Total	11 Total	13 Total	6 Total
Multi-Function Macro-cells	5 Total	5 Total	—	8 Total	8 Total	—
PWMs	2	2	3	—	—	—
Special Features	HV outputs	HV outputs	8-bit ADC and 2x DAC	2-kbit I ² C compatible serial EEPROM emulation	—	—
Counters/Delays	5	5	10	8	8	4
DFF / Latch	15	15	12	17	20	4
Pipe Delay	16-stage	16-stage	2x16-stage	16-stage	16-stage	8-stage
Programmable Delay	1	1	2	1	1	1
Internal Oscillator (Hz)	2 k / 25 M	2 k / 25 M	1.7k / 25 k / 2 M / 27 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	25 k / 25 M
Temp Sensor	Yes	Yes	—	Yes	Yes	—
Communication Interface	I ² C	I ² C	SPI	I ² C	I ² C	—
Package Size (mm)	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	1.6 x 2.0 x 0.55, 0.4 pitch	1.0 x 1.2 x 0.55, 0.4 pitch
Package Type	STQFN	STQFN	STQFN	STQFN	STQFN	STQFN

Automotive Configurable Mixed-Signal Matrix	SLG46538-A	SLG46620-A	SLG46625-A	SLG46827-A	SLG46855-A	SLG46857-A	SLG46880-A	SLG47004-A
Memory Type	OTP	OTP	OTP	MTP	OTP	OTP	OTP	MTP
Temperature Range (°C)	-40 to +125	-40 to +105	-40 to +125	-40 to +105	-40 to +105	-40 to +125	-40 to +125	-40 to +125
# of GPIOs	20/17	20/18	20/18	20/17	14/12	14/12	32/28	24/8
Operating Voltage (V)	1.8 to 5.0	1.71 to 3.6	1.71 to 5.0	2.3 to 5.5	2.3 to 5.5	2.3 to 5.5	2.3 to 5.5	2.4 to 5.5
Dual Supply	1.8 to VDD	—	—	1.71 to VDD	—	—	2.3 to VDD	—
8-bit SAR ADC	—	1	1	—	—	—	—	—
Analog/Digital Comparators	4/0	6/3	6/3	4/0	4/0	4/0	5/0	3
Maximum Look Up Tables (LUTs)	17	26	26	19	23	23	12	20
Maximum Counters / Delays	7	10	10	8	8	8	5	7
Maximum DFF / Latch	8	12	12	17	21	21	5	18
PWMs	—	3	3	—	—	—	—	—
Pipe Delay	2 x 16-stage	2 x 16-stage	2 x 16-stage	16-stage	16-stage	16-stage	16-stage	16-stage
Programmable Delay	1	2	2	1	1	1	1	1
Internal Oscillator (Hz)	25 k / 2 M / 27 M	1.7 k / 25 k / 2 M / 27 M	1.7 k / 25 k / 2 M / 27 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M	2 k / 2 M / 25 M
Asynchronous State Machine	8-State	—	—	—	—	—	12-State	—
Special Features	—	2 x DAC	2 x DAC	—	—	—	—	2xOp AMP or 1x In-AMP; 2xRheostat; 2xAn Switch; 2-Ch Auto-Trim
Communication Interface	I ² C	SPI	SPI	I ² C	I ² C	I ² C	I ² C	I ² C
QFN Part Number	SLG46538-AP	—	SLG46625-AP	—	SLG46855-AP	SLG45857-AP	SLG46880-AP	SLG47004-AP
QFN Package Size (mm)	4 x 4 x 0.8, 0.65 pitch	—	3.5 x 3.5 x 0.75, 0.5 pitch	—	3 x 3 x 0.55, 0.65 pitch	3 x 3.1 x 0.75, 0.65 pitch	5 x 5 x 0.75, 0.5 pitch	4 x 4 x 0.75, 0.5 pitch
Alternate Package Type and Size (mm)	—	TSSOP 6.4 x 6.5 x 1.2, 0.65 pitch	—	TSSOP 6.5 x 6.4 x 1.2, 0.65 pitch	—	—	—	—

Configurable Mixed-Signal Matrix	Power GreenPAK with Load Switches							
Part Number	SLG51000	SLG51001	SLG51002	SLG51003	SLG46116/7	SLG46127	SLG46517	SLG46867
General Parameters								
Memory Type	OTP	OTP	OTP	OTP	OTP	OTP	OTP	OTP
# of Pins / # of GPIOs	20 / 6	16 / 4	25 / 6	14 / 5	14 / 7	16 / 6	28 / 16	20 /12
Operating Voltage (V)	2.8 to 5	2.8 to 5	2.8 to 5	2.8 to 5	1.71 to 5.5	1.71 to 5.5	1.71 to 5.5	2.3 to 5.5
Communication Interface Type	I²C	I²C	I²C	I²C	–	–	I²C	I²C
Communication Interface Voltage	1.2 V - 1.8 V	1.2 V - 1.8 V	1.2 V - 1.8 V	1.2 V - 5 V	–	–	1.2 V - 5 V	1.2 V - 5 V
GPIO Voltage	1.2 V to 1.8 V	1.2 V to 1.8 V	1.2 V to 5.0 V	1.2 V to 5.0 V	1.71 to 5.5 V	1.2 V to 5.0 V	1.2 V to 5 V	1.2 V to 5 V
Package Type	WLCSP	WLCSP	WLCSP	TQFN	TQFN	TQFN	TQFN	TQFN
Package Size (mm)	1.675 x 2.075 x 0.465, 0.4 pitch	1.675 x 1.675 x 0.465, 0.4 pitch	1.992 x 1.992 x 0.44, 0.35 pitch	2.0 x 2.2 x 0.55, 0.4 pitch	1.6 x 2.5 x 0.55, 0.4 pitch	1.6 x 2.0 x 0.55, 0.4 pitch	2.0 x 3.0 x 0.55, 0.4 pitch	1.6 x 3.0 x 0.4, 0.4 pitch
Operating temperature (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
Combinatorial logic								
Analog Comparators	–	–	–	–	2	2	4	4
Max. Look Up Tables (LUTs) / DFF	12 / -	12 / -	8 / 8	8 / 8	10 / 4	10 / 4	17 / 8	23 / 21
Pipe Delay	–	–	–	–	8-stage	8-stage	16-stage	16-stage
Internal Oscillator (Hz)	8 M	8 M	8 M	8 M	25 k / 2 M	25 k / 2 M	25 k / 2 M / 25 M	25 k / 2 M / 25 M
Max. Counters/Delays	–	–	1 / 4	1 / 4	4	4	7	8
Combination Function Macro-cells	–	–	7	7	6	6	17	15
State Machine	Power Sequencer	Power Sequencer	Power Sequencer	–	–	–	8-state ASM	–
Power Parameters								
# of Load Switches	2	1	5	1	1 Total	2 Total	2 Total	2 x PFET
Load Switch Type (PMOS / NMOS)	2 x NMOS	1 x NMOS	3 x NMOS, 2 x PMOS	1 x NMOS	1 x PMOS	2 x PMOS	2 x PMOS	2 x PMOS
Max Iout	0.8 A	1 A	1.3 A	0.8 A	1.25 A	2 A	2 A	2 A
RON	40 mOhm	40 mOhm	40 mOhm	40 mOhm	28.5 mOhm	44 mOhm	44 mOhm	44 mOhm
Programmable Current Limit	Yes	Yes	Yes	Yes	–	–	–	–
Slew Rate	Yes	Yes	Yes	Yes	Fixed	–	–	–
# of LDOs	7	6	8	3	–	–	–	–
Protection Features	ESD, OCP, OTP, UVLO	ESD, OCP, OTP, UVLO	ESD, OCP, OTP, UVLO	ESD, OCP, OTP, UVLO	ESD, Read Lock	ESD, Read Lock	ESD, Read Lock	ESD, Read Lock
Discharge Resistance	Fixed	Fixed	Programmable	Programmable	W/O Fixed	–	–	–

Configurable Mixed-Signal Matrix	Power GreenPAK with LDOs							
Part Number	SLG51000	SLG51001	SLG51002	SLG51003	SLG46580	SLG46582	SLG46583	SLG46585
General Parameters								
Memory Type	OTP	OTP	OTP	OTP	OTP	OTP	OTP	OTP
# of Pins / # of GPIOs	20 / 6	16 / 4	25 / 6	14 / 5	20 / 9	20 / 9	20 / 9	29 / 7
Operating Voltage (V)	2.8 - 5.0	2.8 - 5.0	2.8 - 5.0	2.8 - 5.0	2.3 - 5.5	2.3 - 5.5	2.3 - 5.5	2.5 - 5.5
Communication Interface Type	I ² C	I ² C	I ² C	I ² C	I ² C	I ² C	I ² C	I ² C
Communication Interface Voltage	1.2 V - 1.8 V	1.2 V - 1.8 V	1.2 V - 1.8 V	1.2 V - 5.0 V	1.2 V - 5.5 V	1.2 V - 5.5 V	1.2 V - 5.5 V	1.2 V - 5.5 V
GPIO Voltage	1.2 V to 1.8 V	1.2 V to 1.8 V	1.2 V to 5.0 V	1.2 V - 5.0 V	1.2 V to 5.5 V	1.2 V to 5.5 V	1.2 V to 5.5 V	1.2 V to 5.5 V
Package Type	WLCSP	WLCSP	WLCSP	TQFN	TQFN	TQFN	TQFN	TQFN
Package Size (mm)	1.675 x 2.075 x 0.465, 0.4 pitch	1.675 x 1.675 x 0.465, 0.4 pitch	1.992 x 1.992 x 0.44, 0.35 pitch	2.0 x 2.2 x 0.55, 0.4 pitch	2 x 3 x 0.55, 0.4 pitch	2 x 3 x 0.55, 0.4 pitch	2 x 3 x 0.55, 0.4 pitch	3 x 3 x 0.55, 0.4 pitch
Operating temperature (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
Analog Comparators	–	–	–	–	4	4	4	4
Max. Look Up Tables (LUTs) / DFF	12 / -	12 / -	8 / 8	8 / 8	15 / 9	15 / 9	15 / 9	16 / 9
Pipe Delay	–	–	–	–	16 - stage	16 - stage	16 - stage	16 - stage
Internal Oscillator (Hz)	8 M	8 M	8 M	8 M	1.73 k / 25 k / 2 M	25 k / 2 M	25 k / 2 M	25 k / 2 M
Max. Counters/Delays	–	–	1 / 4	1 / 4	5	5	5	5
Combination Function Macro-cells	–	–	8	7	15	15	15	15
State Machine	Power Sequencer	Power Sequencer	Power Sequencer	–	8-state ASM	8-state ASM	8-state ASM	8-state ASM
Flexible Timing & Event-Triggered Sequencer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Parameters								
# LDOs	7	6	8	3	4	2	2	4
VIN total range	0.8 V - 5.0 V	0.8 V - 5.0 V	0.8 V - 5.0 V	0.8 V - 5.0 V	2.3 V - 5.5 V	2.3 V - 5.5 V	2.3 V - 5.5 V	2.5 V - 5.5 V
VOUT total range	0.5 V - 3.75 V	0.5 V - 3.75 V	0.5 V - 3.75 V	0.5 V - 3.75 V	0.9 V to 4.35 V	0.9 V to 4.35 V	0.9 V to 4.35 V	0.9 V to 4.2 V
Output Current Max (A)	0.8	1	1.3	0.8	0.15	0.3	0.6	0.15
Max Iout_LDO1 (mA)	475 (High PSRR)	475 (High PSRR)	500	475 (High PSRR)	150	300	600	150
Max Iout_LDO2 (mA)	475 (High PSRR)	500	500	500	150	300	–	150
Max Iout_LDO3 (mA)	500	500	500	800	150	–	–	150
Max Iout_LDO4 (mA)	500	500	500	–	150	–	–	150
Max Iout_LDO5 (mA)	800	500	500	–	–	–	–	–
Max Iout_LDO6 (mA)	800	1000	1A	–	–	–	–	–
Max Iout_LDO7 (mA)	500	–	1 A	–	–	–	–	–
Max Iout_LDO8 (mA)	–	–	1.3 A	–	–	–	–	–
# of Load Switches	2	1	5	1	4	2	1	1
Vdropout	80 mV @ 0.8A (LV LDO)	100 mV @1 A (LV LDO)	130 mV @ 1.3 A (LV LDO)	100 mV @ 0.8 A (LV LDO)	250 mV	250 mV	250 mV	250 mV
PSRR	87 dB @ 100 kHz (HP LDO)	87 dB @ 100 kHz (HP LDO)	65 dB @ 100 kHz (HV LDO)	87 dB @ 100 kHz (HP LDO)	50 dB @ 100 Hz to 100k Hz	50 dB @ 100 Hz to 100k Hz	50 dB @ 100 Hz to 100k Hz	50 dB @ 100 Hz to 100k Hz
Output Noise	13 uV @ 10 Hz to 100 kHz (HP LDO)	13 uV @ 10 Hz to 100 kHz (HP LDO)	152 uV @ 10 Hz to 100 kHz (HV LDO)	18 uV @ 10 Hz to 100 kHz (HP LDO)	75 uV @ 10 Hz to 100 kHz	75 uV @ 10 Hz to 100 kHz	75 uV @ 10 Hz to 100 kHz	75 uV @ 10 Hz to 100 kHz
Current limit	Startup & Functional (Programmable)	Startup & Functional (Programmable)	Startup & Functional (Programmable)	Startup & Functional (Programmable)	Over-current & Short-Circuit Detection Current Limit	Over-current & Short-Circuit Detection Current Limit	Over-current & Short-Circuit Detection Current Limit	Over-current & Short-Circuit Detection Current Limit
Protection Features	ESD, OCL, OTP, UVLO	ESD, OCL, OTP, UVLO	ESD, OCL, OTP, UVLO	ESD, OCL, OTP, UVLO	ESD, OCL, SCD, OTP, Read Lock	ESD, OCL, SCD, OTP, Read Lock	ESD, OCL, SCD, OTP, Read Lock	ESD, OCL, SCD, OTP, Read Lock

GreenPAK PORTFOLIO

	HVPAK™	
Configurable Mixed-Signal Matrix	SLG47105	SLG47115
Memory Type	OTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85
# of GPIOs	8	8
High Voltage High Current Output (HV_GPO_HD)	4 x 1.5 A RMS (2 A Peak) HV_GPO_HD	2 x 1.5 A RMS (3 A Peak) HV_GPO_HD
Operating Voltage (V)	2.3 to 5.5	2.3 to 5.5
Dual Supply (VDD2, V)	3.0 to 13.2	4.5 to 26.4
Abs Max (VDD2, V)	18	32
Analog / Current Sense Comparators / Differential Amplifier	2/2/1	2/1/1
Maximum Look Up Tables (LUTs)	17	17
Maximum Counters/Delays	5	5
Maximum DFF / Latch	15	15
PWMs	2	2
Pipe Delay	16-stage	16-stage
Programmable Delay	1	1
Internal Oscillator (Hz)	2 k / 25 M	2 k / 25 M
Communication Interface	I²C	I²C
QFN Package Size (mm)	20-pin, 2.0 x 3.0 x 0.55, 0.4 pitch	20-pin, 2.0 x 3.0 x 0.55, 0.4 pitch

	AnalogPAK™		
Configurable Mixed-Signal Matrix	SLG47001/SLG47003	SLG47004	SLG47011
Memory Type	OTP	MTP	OTP
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85
# of GPIOs	6/10	8	13
Operating Voltage (V)	2.3 to 5.5	2.4 to 5.5	1.71 to 3.60
Operational Amplifiers	2	3	—
Digital Rheostats (1024 Position), resistance	2 x 100 kΩ	2 x 100 kΩ	—
Analog Switch	1	2	—
Analog / Current Sense Comparators / Differential Amplifier	6 (1 multi-channel)/0/0	3/0/0	1/0/0
Width Converter	1 x 8-bit	—	1 x 12-bit
Memory Table	—	—	4096 x 12-bit words
ADC	—	—	1 x 14-bit
DAC	—	—	1 x 12-bit
Data Buffer	—	—	4 x 16-bit
MathCore	—	—	4 math operations (+, -, x, /)
Maximum Look Up Tables (LUTs)	16	20	31
Maximum Counters/Delays	5	7	13
Maximum DFF / Latch	16	18	31
PWMs	—	—	1
Pipe Delay	—	16-stage	—
Programmable Delay	1	1	1
Internal Oscillator (Hz)	2 k or 10 k / 25 M	2.048 k / 2.048 M / 25 M	2 k or 10 k / 20 M or 40 M
Communication Interface	I²C	I²C	I²C/SPI
QFN Package Size (mm)	20-pin 2.0 x 3.0 x 0.55, 0.4 pitch/ 24-pin 3.0 x 3.0 x 0.55, 0.4 pitch	24-pin, 3.0 x 3.0 x 0.55, 0.4 pitch	16-pin 2.0 x 2.0 x 0.55, 0.4 pitch

Visit renesas.com/greenpak for more details on the complete portfolio of products, including datasheets, eval boards and samples.

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