

# SIM535

## SIM535 7" WVGA Graphic/Touch Module Family



Powered by the



## Professional 7" GUI Performance

The SIM535 delivers a high performance 7" 800x480 WVGA user interface experience powered by the Renesas SH2 MPU.

The SIM535 features a 7" wide format 800x480 LCD color TFT screen, and supports an extended -20 to +70C operating range, with various brightness, touch, and backlight longevity options.

Standard high speed UART, SPI and power connectivity is provided by a Serious 16-pin Power/Communications Connector -- perfect for simple attachment to existing systems. A low-profile board-to-board 60-pin expansion connector supports easy custom daughtercard development for more complex connectivity.

SIM535 is an Extended Lifetime Roadmap Product and is fully supported by the SHIP rapid GUI development and deployment system.

## Family Highlights

### 3.5" Bright, Large QVGA 320x240 color TFT display

- Various touch panel, backlight, and color depth options
- Proximity and Ambient Light Sensing options

### 100MHz 32-bit Renesas RX63N/RX631 MCU

- 2.5MB On-Chip RAM
- 2D Graphics Controller/Accelerator

### On Module Memory

- 32MB SDRAM
- 2 or 4GB eMMC FLASH
- 8MB boot Serial FLASH + 2Kbit EEPROM

### Extensive I/O

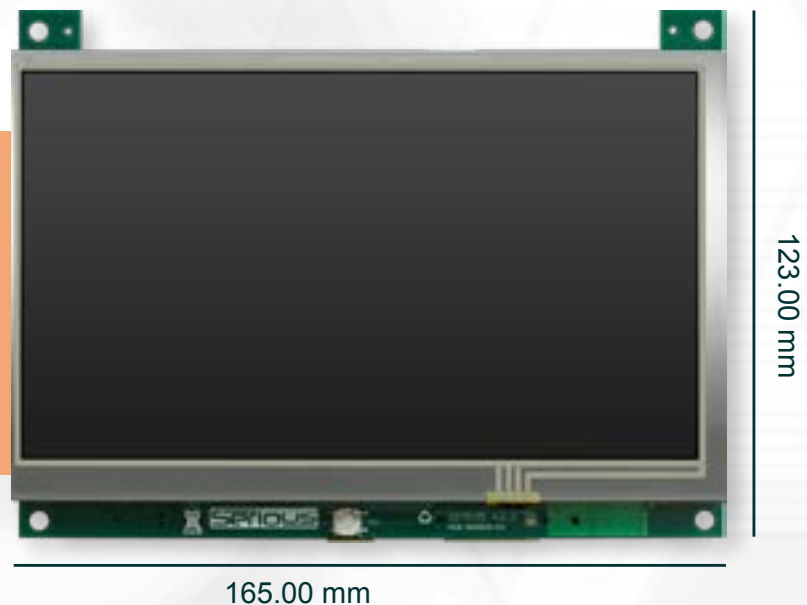
- SDCard socket
- USB 2.0 HS Embedded Host
- USB 2.0 HS Device
- Serious 16-pin Power/Communications Connector
- SHIP Programming Port
- Tag-Connect TC2070 JTAG
- 60-pin serial expansion connector

### Wide Operating Range

- -20 to 70°C extended operating temperature
- 3.6 to 5.50 VDC Input Power

Update your product's front panel with *Serious* modules:

- ✓ Production worthy
- ✓ Prototype friendly
- ✓ Rapid GUI development



## Family Variants

	A01	A02	A03	A04
MCU SH Family	7269	7269	7269	7269
MCU RAM (KB)	2560	2560	2560	2560
FLASH: eMMC/Serial	4G/8M	4G/8M	2G/8M	2G/8M
SDRAM (MB)	32	32	32	32
Touch	R4		R4	
Ambient Light Sensor	●	●	●	●
16 Pin Power/Comms Connector	●	●	●	●
Tag-Connect JTAG	●	●	●	●
SHIP Programming Connector	●	●	●	●
60-pin serial/power expansion	●	●	●	●
USB2.0 HS Device circuitry	●	●	●	●
USB2.0 HS Device Micro B	●	●		
USB2.0 HS 150mA Host A	●	●		
Piezo Sounder	●	●		
10-bit DAC Output	●	●		
Real-Time Clock/Calendar (RTCC)	●	●		
RTCC Battery Backup	●	●		
PCB Temp Sensor	●	●		
Front LED & User Button	●	●		

## LCD Options

	R22ALL	R55ALL	N22ALL	N55ALL
Size (diagonal, active)	7"	7"	7"	7"
Resolution (WxH)	800x480	800x480	800x480	800x480
Touch	R4	R4		
NITs	200+	500+	200+	500+
Backlight Life (Hour)	20k	50k	20k	50k
Viewing Technology	Land	Land	Land	Land
Color Depth (bits)	24	24	24	24
Temp Range (°C)	-20/+70	-20/+70	-20/+70	-20/+70

Visit [www.seriousintegrated.com/SIM535](http://www.seriousintegrated.com/SIM535) for complete, up-to-date variants.

# Building a GUI is easy when you get **SERIOUS™**

Develop your GUI using the Serious Human Interface™ Platform for professional results in a fraction of the time of traditional coded development.

## Fast GUI Development with SHIP

Are you looking for a comprehensive PC-based WYSIWYG rapid-GUI development environment with minimal coding? Use the Serious Human Interface Platform (SHIP) to create a complete, communicating and functioning GUI in just *hours*. See [seriousintegrated.com/SHIP](http://seriousintegrated.com/SHIP) for more details.



## Serious Communications Modules

Serious offers numerous communications daughter cards for Serious Integrated Modules to help complete your hardware design in connected environments, including CAN, RS232, RS485, WiFi, Bluetooth, Ethernet and more.

[Serious Communications Modules](#) (SCM117, SCM118 and SCM208, sold separately) dock into the back of 3rd and 4th Generation SIMs, providing connectivity, 9-25VDC to 5VDC power conversion for the SCM and SIM and an optional on-board OEM programmable 32-bit MCU for custom protocol conversion between your OEM system and the SIM.

## Development Kits

Purchase a SIM535-A01-DEV-01 development kit today, which contains everything you need to start working with SIM231, including:

- SIM535-A01-R55ALL module
- Acrylic demo enclosure
- AC power adapter
- Sample 16-pin cable
- SHIP Programming Adapter 200 (SPA200) Kit

## Partner Support

Serious is a Renesas Platinum Partner. Serious Integrated Modules are supported with software and services from Renesas and Serious strategic partners.



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## Ordering Information

Visit [www.seriousintegrated.com/buy](http://www.seriousintegrated.com/buy) for ordering information, or contact an authorized Serious distributor:



## Need More Information?

Contact your local *Serious* Representative or contact your Arrow Electronics Applications Engineer.

Visit [seriousintegrated.com/SIM535](http://seriousintegrated.com/SIM535) for

- Ordering information
- Mechanical Design Package (MDP)
- Technical Reference Manual (TRM)
- Schematics and more

Visit the *Serious* community at [mySerious.com](http://mySerious.com)

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