SIM535 7.0" WVGA
Graphic/Touch Module Family

Pre-release Information

7.0" WVGA Graphic/Touch Module Family
Powered by the Renesas SH7269 RENESAS SuperH *CPU*

123mm

165mm

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

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

The SIM535 delivers a high performance user interface experience powered by the Renesas SH2 MPU.

Featuring a 7" wide format 800x480 LCD color TFT screen, and extended -20 to +70C operating range, the family has various brightness, touch, and back-light longevity options.

Standard high speed UART, SPI and power connectivity is provided by a 16-pin Power/Communications Connector – perfect for simple wire-harness attachment to existing systems. A low-profile board-to-board 60-pin expansion connector supports easy custom daughter card development for more complex connectivity.
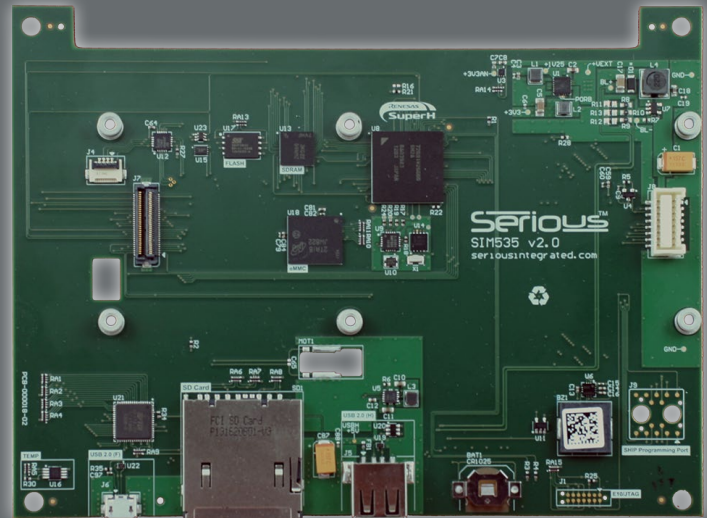
The SIM535 is an Extended Lifetime Roadmap Product and is fully supported by the Serious Human Interface™ Platform (SHIP) rapid GUI development and deployment system.

Family Highlights

- 266MHz 32-bit Renesas SH7269 CPU
  - On-chip 2.5MB RAM, FPU, 2D GFX
- 7.0" WVGA 800x480 color TFT display
  - Various touch, backlight, color depth options
  - Proximity and Ambient Light Sensing options
- 266MHz 32-bit Renesas SH7269 MPU
  - 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
  - 16-pin Power/Communications Connector
  - 60-pin serial expansion connector
  - SDCard socket
  - USB 2.0 HS Embedded Host
  - USB 2.0 HS Device
  - SHIP Programming Port
  - Tag-Connect TC2070 JTAG
- Wide Operating Range
  - -20 to +70°C extended operating temperature
  - 3.6 to 5.50 VDC Input Power

Product & LCD Options

Product and LCD Options to fit your feature, performance and cost targets

Family Variants

	A01	A02	A03	A04
MCU Frequency		266MHz		
MCU RAM		2560kB		
FLASH e-MMC/Serial	4GB/8MB		2GB/8MB	
SDRAM		32MB		
Touch	R4	O	R4	O
Proximity Detect	●	O	●	O
Ambient Light Sensor	●	●	●	●
16-Pin Power/Comms Connector • UART, SPI, I2C, DAC	●	●	●	●
60 Pin Board-to-Board Expansion • UARTs, I2S, SPI, I2C, CAN, DAC, USB Device	●	●	●	●
SHIP Programming Connector	●	●	●	●
Tag-Connect TC2070 JTAG	●	●	●	●
USB HS Device Micro B		●		O
USB HS Host A		●		O
SDCard socket		●		O
Battery Backed Real Time Clock		●		O
Piezo Audio Sounder		●		O
Dual Color User LED & Pushbutton		●		O
PCB Temp Sensor		●		O

LCD Options

	R22ALL	N22ALL	R55ALL	N55ALL
Size	7" Diagonal Active			
Resolution (WxH)	800x480			
Touch	R4		R4	
NITs	200+		500+	
Backlight Life (kHr)	20K+		50K+	
Viewing	Land			
Proximity Capable	●		●	
Color Depth (bits)	24			
Temp Range (°C)	-20/+70			

Visit www.seriousintegrated.com/SIM535
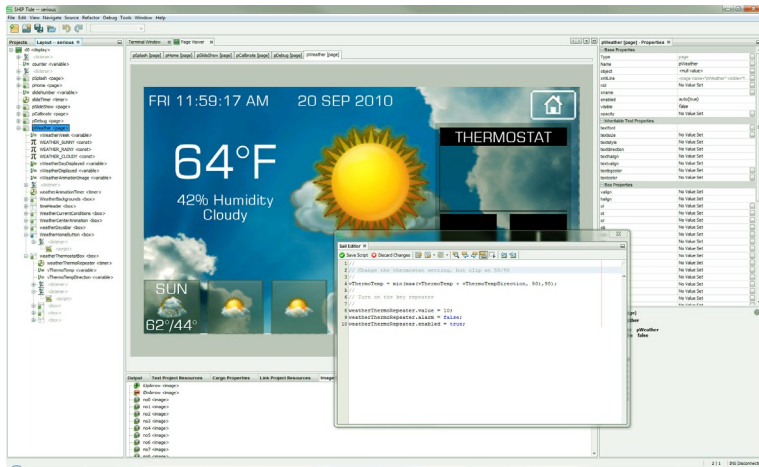for complete, up-to-date variant and LCD options.

Building a GUI can be hard. We can help.

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

Looking for comprehensive PC/MAC/Linux-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 as little as *hours.* See www.seriousintegrated.com/SHIP for details.

Communications Daughter Cards

Serious offers numerous communications daughter cards for the SIM535 to help complete your hardware design in industrial network environments, including CAN, RS232, RS485, and more.

The Serious Communications Module 117 (SCM117), available separately, docks into the back of newer SIMs including SIM535, SIM115, and SIM231, and provides CAN, RS232, and RS485 connectivity, 9-25VDC to 5VDC power conversion for the SCM and SIM, and an optional on-board 32-bit RX111 MCU for custom protocol conversion between the network and the SIM.

Development Kits

The SIM535-A01-DEV-01 development kit contains everything you need to start working with the SIM535 family, including:

- SIM535-A01-R55ALL module
- Acrylic demo enclosure
- AC power adapter
- Sample 16-pin cable
- *SHIP Programming Cable 200 (SPC200)
- *SHIP Programming Adapter 200 (SPA200)

*coupon included prior to SPA200/SPC200 release

Support and Services

Serious offers comprehensive software, hardware and GUI customization and development services. Contact Serious for information. mySerious.com offers community and *Serious* support for all registered users of *Serious* modules.

Partner Support

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

Ordering Information

Visit seriousintegrated.com/SIM535 for up-to-date ordering information, or contact an authorized *Serious* distributor:

Need More Info?

- Contact your local *Serious* Representative
- Contact your Arrow Electronics Applications Engineer
- Visit seriousintegrated.com/SIM535
  - Ordering information
  - Mechanical Design Package (MDP)