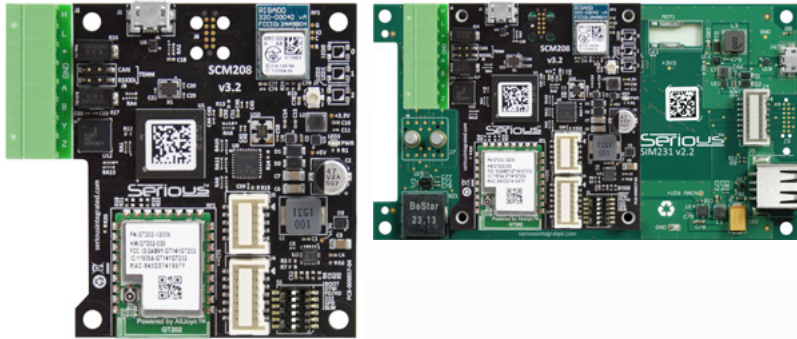


SCM208

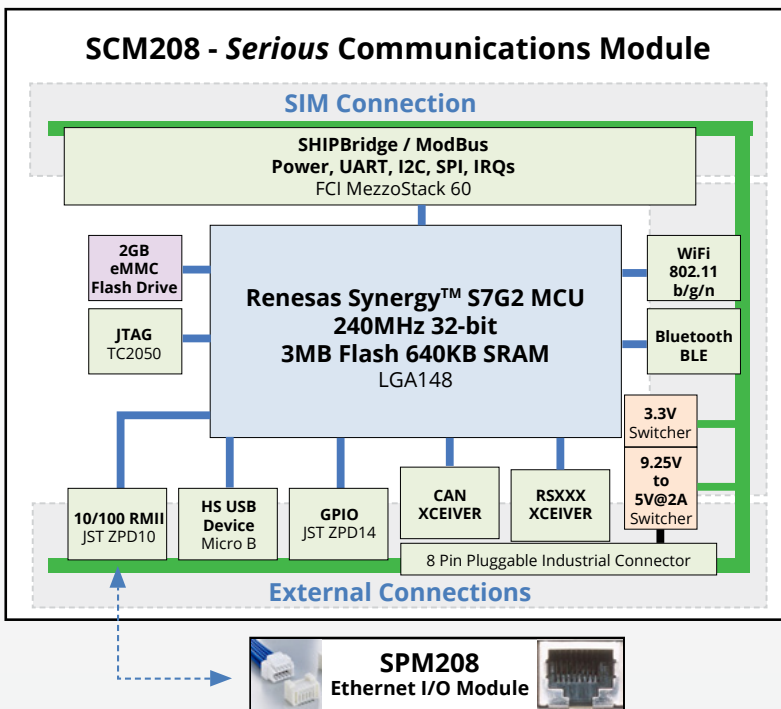


Top View

Mounted on SIM231

Serious Integrated's SCM208 provides two essential functions in an embedded computing system: it provides connectivity among a collection of disparate communications interfaces, and adapts incoming system/network +9-25VDC power to the +12VDC required by the SCM and +5VDC for the Serious Integrated Module (SIM).

Designed to complement the SIM, the SCM208 provides Ethernet, WiFi, Bluetooth Smart with NFC™-A tag support, RS232 or RS422/485, and CAN connectivity. An on-board Renesas Synergy™ S7G2 MCU provides an open programming platform for protocols, IoT and IT connectivity, GPIO, OEM system control and custom data interchange between the SIM's GUI and the OEM target system. The SCM208 powers the SIM+SCM from a wide +9-25VDC input.



SCM208 Features	A00	A01	A02
Core Features			
Board-to-Board Docking to Gen 3/Gen 4 SIMs	•	•	•
+9-25VDC to 5V @ 2A (max) DC-to-DC Converter	•	•	•
Synergy S7G2 240MHz ARM Cortex-M4 MCU	•	•	•
3MB Flash / 640KB RAM	•	•	•
USB Device w/ Micro B Connector	•	•	•
Digital/Analog I/O JST14 Connector	•	•	•
e.MMC (GB)	2	2	2
Industrial Networking			
CAN Controller	•	•	•
CAN Transceiver	•	•	•
RS232 or RS422/485	•	•	•
Tag-Connect TC050 Debug Port	•	•	•
Wireless Networking			
Bluetooth Smart w/NFC™-A Tag Support	•		
WiFi 802.11 b/g/n	•	•	
Ethernet*	•	•	•

* Requires SPM208 Ethernet Connector Module

SCM208

SCM208 Software Stack					
User Applications					
SERIOUS™ Abstraction Layers					
OSAL	FSAL	Error Reporting			
Data Tunnel Manager	File Manager	Update Manager (USB/OTA/OTW)			
Heap System	Buffer System	Primary/Secondary Bootloader			
Security					
TLS/SSH	PKI (X.509 Certificates)	Encrypted File System			
Secure Boot	NGE (AEAD, ECDSA, ECDHA, SHA-256)				
Communication Protocols					
MQTT	FTP	HTTP			
IPv4 (DHCP/DNS)	TCP	UDP			
Websocket	Modbus	SHIPBridge™			
RTOS Kernel / Stacks					
File System Stack	USB-D Stack	IP Stack			
BSP / Device Drivers					
WiFi	Ethernet	BLE/NFC	MMC	CAN	GPIO
UART	SPI	I2C	USB	RS232	RS422/485
SCM208 Hardware					

SCM208 Software and Security Features

SCM208 provides a powerful and easy-to-use platform for designing and implementing real-time applications. A well-defined software stack along with a user application layer allows a convenient way of configuring and using the platform for a smooth out-of-box experience. A multitude of APIs in Serious' abstraction layers enable a quick and efficient way of harnessing the power of the underlying MCU and peripherals for custom applications. SCM208 supports an array of communications protocols as well as production ready device drivers and security features. SCM208 can be used as a stand-alone control and communications device in the OEM product, or it can be used as a cloud-connected device for machine-to-machine communication in an Industrial IoT ecosystem.

When connecting Industrial IoT devices to the cloud, security is one of the most important requirements. Serious' security solution is a fully integrated ecosystem enabling clients to focus on their application knowing that the security features of Serious Communications Modules are protecting them from cyber threats. Serious Communications Modules (SCM) offer dedicated hardware and software to address the security of Industrial IoT systems and components.

To ensure a secure environment for Industrial IoT devices and connections, Serious offers a comprehensive security architecture and strategy which address three key areas; Confidentiality, Integrity and Authentication. SHIPTide secures the internal platform by allowing only Serious Software and drivers to operate on our devices while the interface to the cloud is secured through the utilization of Next Generation Encryption (NGE), Transport Layer Security (TLS), and Public Key Infrastructure (PKI) utilizing X.509 Certificates.

ORDERING INFORMATION

Serious Integrated products are available directly through Arrow and Digi-Key. Visit us at www.seriousintegrated.com for details.

SERIOUS INTEGRATED, INC. RESERVES THE RIGHT TO CHANGE WITHOUT NOTICE.
 Products and specifications discussed herein are for reference purposes only. All information discussed herein is provided on an "AS IS" basis, without warranties of any kind. This document and all information discussed herein remain the sole and exclusive property of Serious Integrated, Inc. No license of any patent, copyright, mask work, trademark or any other intellectual property right is granted by one party to the other party under this document, by implication, estoppel or other-wise. Serious products are not intended for use in life support, critical care, medical, safety equipment, or similar applications where product failure could result in loss of life or personal or physical harm, or any military or defense application, or any governmental procurement to which special terms or provisions may apply. For updates or additional information about Serious products, contact Serious directly. Copyright © 2017 Serious Integrated, Inc. All brand names, trademarks and registered trademarks belong to their respective owners.