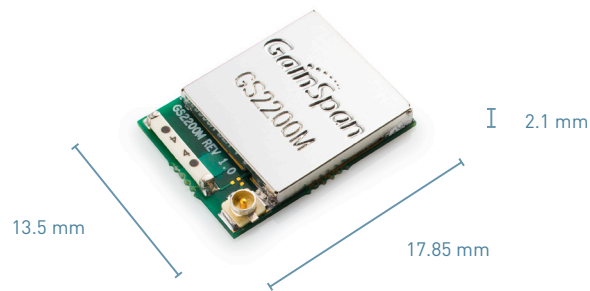# Telit

GS2200M Series

2.1 mm

13.5 mm

17.85 mm

Wi-Fi 802.11 **b/g/n** Embedded

Product Description

The GS2200M series is a fully integrated Wi-Fi module with an extremely small footprint that provides an easy, cost-effective way for manufacturers to add Wi-Fi connectivity to their products. Module comes with optional integrated chip anetnna or UFL connector. Intended for a variety of size-constrained applications, the ~250 sq. mm comes with optional on-board chip antenna or U.FL connector, 4MB FLASH, industry- leading SRAM resources, a high bit-rate 16-bit sigma-delta ADC, 12- bit ADC, and 19 GPIO supporting most interfaces.

This module provides a low-cost, high-speed serial to Wi-Fi connection to an embedded design built on an 8/16/32-bit microcontroller, through UART, SPI, or SDIO interfaces.

The GS2200M is an ideal solution for organizations with limited Wi-Fi or RF expertise or for those seeking faster time to market, as it reduces RF design time and removes the burden of testing and certification. The module is IEEE 802.11b/g/n compliant, and meets major global regulatory and Wi-Fi Alliance certification requirements.

The module runs the full Wi-Fi and TCP/IP networking stacks, completely offloading the host microcontroller. It supports a complete suite of security protocols, also without tasking the host microcontroller, including WPA/WPA2-Enteprise and Personal security modes, and upper layer security protocols such as TLS/SSL and HTTPs. Alternatively, it can be run self-contained without a host.

Easy to provision, the module can be set up from a smartphone or laptop through the innovative Limited AP mode or with Wi-Fi Protected Setup (WPS).

The module is single-sided with solder pads on the bottom for the I/O and PWR/GND connections for soldering down on the product's baseboard. It is intended for both line-powered and battery-powered applications.

The GS2200M module is easily designed into embedded systems, allowing customers to develop a broad array of devices and appliances that connect to other local devices or to the Internet over Wi-Fi. Applications include smart energy, smart home, healthcare and fitness, industrial controls, commercial building automation, and audio/video consumer electronics

Key Benefits

- Extremely compact for size-constrained applications
- Adds low power, high speed Wi-Fi and Internet connectivity to any device with a microcontroller and serial host interface or as the standalone application microcontroller
- Certified module reduces development time, testing and certification, accelerating time to market
- Easy smartphone provisioning with Limited AP or Wi-Fi Protected Set-up (WPS)
- Ultra-low power through dynamic power management modes and optional off module DC to DC components

AVAILABLE FOR

EMEA

North America

Latin America

Japan

Korea

Australia

Combine your
Cat 1 module with

High precision GNSS modules

www.telit.com

Complete, Ready to Use Access to the Internet of Things

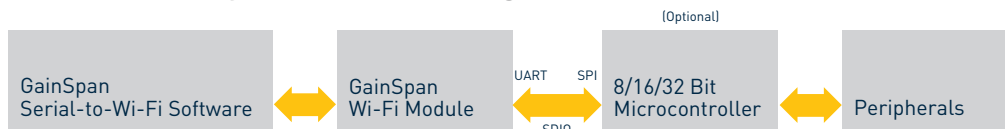

IoT MODULES

IoT CONNECTIVITY

IoT PLATFORMS

IoT KNOW-HOW

ENABLING END-TO-END IOT SOLUTIONS

GS2200M Series

Radio Protocol	IEEE 802.11 b/g/n
Pin Count	66 pins (30 GND)
RF Output Power (Typical)	+15 dBm (802.11b 1Mbps), +14 dBm (802.11g 6Mbps), +14 dBm (802.11n MCS0)
Rx Sensitivity (Typical)	-91 dBm (802.11b 1Mbps), -88 dBm (802.11g 6Mbps), -88 dBm (802.11n MCS0)
RF Operating Frequency	2.4 - 2.495 GHz
Supported Data Rates	65, 58.5, 52, 39, 26, 19.5, 13, 6.5Mbps (802.11n), 54, 48, 36, 24, 18, 12, 9, 6 Mbps (802.11g), 11, 5.5, 2, 1 Mbps (802.11b)
Antenna Option	Onboard chip antenna or UFL connector
Operating Temperature	-40° to +70°C
Security Protocols	WPA/WPA2 - Personal, WPA/WPA2 - Enterprise (PEAP, EAP-FAST, EAP-TLS,EAP-TTLS), WEP, TLS/SSL Client and Server, HTTPs
Networking Protocols	TCP, UDP, IPv4, TLS Client and Server, SNTP client, DHCP Client and Server v4, DHCP Client and Server v6, DNS Client and Server, mDNS, DNS-SD, HTTP Clientand Server, and XML Parser
Certifications and Compliance	FCC, IC, TELEC, CE/ETSI, ROHS, Wi-Fi CERTIFIED
I/O Interfaces	SPI, UART, SDIO, I2C, I2S,GPIO (19), 16 & 12 bit ADC, JTAG, PWM (3),RTC
Host Connections	UART, SPI, SDIO
Internal Flash	4 MB
Outline Dimensions	13.5mm x 17.85mm x 2.1mm
I/O Voltage	3.3V or 1.8V
Operating Voltage	2.7-3.6V
V_{BAT}	1.6-3.6V
Ultra-low power system	Deep-Sleep: ~440microamperes Standby: ~2.4-8microamperes Hibernate: ~260nanoamperes

Models	
GS2200MIZ	Chip Antenna
GS2200MIE	U.FL

GS2200MIZ System Block Diagram

GainSpan Serial-to-Wi-Fi Software ⟷ GainSpan Wi-Fi Module — UART / SPI / SDIO ⟷ 8/16/32 Bit Microcontroller (Optional) ⟷ Peripherals

Join the Telit Technical Forum

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