Quick Start Guide

TWR-WIFI-GS1500M
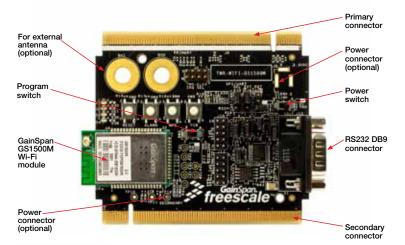802.11b/g/n Wi-Fi® Module

freescale

TOWER SYSTEM

Get to Know the TWR-WIFI-GS1500M

Primary connector

For external antenna (optional)

Power connector (optional)

Program switch

Power switch

GainSpan GS1500M Wi-Fi module

RS232 DB9 connector

Power connector (optional)

Secondary connector

TWR-WIFI-GS1500M
Freescale Tower System

The TWR-WIFI-GS1500M module is part of the Freescale Tower System, a modular development platform that enables rapid prototyping and tool re-use through reconfigurable hardware. Take your design to the next level and begin prototyping with your Tower System today.

TWR-WIFI-GS1500M Features

- Features GS1500M Wi-Fi module from GainSpan
  - Operates with standard 802.11 b/g/n access points at speeds up to 72 Mb/s
- Supports Infrastructure, Limited AP, Ad hoc or Wi-Fi Direct mode
  - UART and SPI interfaces:
    - Clock rate of up to 1.4 Mb/s in SPI slave mode
    - Data rates of up to 921.6 Kb/s on UART
- Full Wi-Fi stack including WPS and optional networking stack and services
- 802.11i security: WEP, WPA, WPA2-PSK, enterprise
- Certified RF module: FCC, IC, Wi-Fi, RoHS

Fully compliant with EU and meets the R&TTE Directive for Radio Spectrum Japan Radio Type Approval (i.e. TELEC) and is pre-scan compliant.

TWR-WiFi-GS1500M Jumper Options

The following is a list of all jumper options. The default installed jumper settings are shown in white text within the black boxes.

Jumper	Option	Setting	Description
SW1	Power Supply Input	**ELEV PWR**	Power from Tower System 3.3 V
		DC PWR	Power from DC power jack (J2)
SW6	Mode Selection	**RUN**	GS1500M in standard "run" mode
		PRGM	GS1500M in program mode
J1	Interrupt Selection	1–2	Connect GS1500M interrupt to Tower IRQ_G (B56)
		3–4	Connect GS1500M interrupt to Tower IRQ_E (B58)
		5–6	Connect GS1500M interrupt to Tower IRQ_C (B60)
		7–8	Connect GS1500M interrupt to Tower IRQ_A (B62)
J3	SPI/UART Selection	**1–2**	Select SPI as serial interface
		2–3	Select UART as serial interface
J4	GS1500M Reset Selection	1–2	Connect GS1500M reset to Tower GPIO9 (A9)
		2–3	No connection
J5		**1–2**	Connect GS1500M reset to Tower RSTOUT (A63)
		2–3	Connect GS1500M reset to Tower GPIO1 (B21)

Jumper	Option	Setting	Description
J7	Slave SPI Port CS Selection	**1–2**	Connect Tower SPI0_CS0 to slave SPI CS on GS1500M
		2–3	Connect Tower SPI0_CS1 to slave SPI CS on GS1500M
J8	UART Routing Selection	1–2	Connect GS1500M UART0 to onboard RS232/DB9
		2–3	Connect GS1500M UART0 to Tower System
J9	Master SPI Port CS Selection	**1–2**	Connect Tower SPI1_CS1 to master SPI CS on GS1500M
		2–3	Connect Tower SPI1_CS0 to master SPI CS on GS1500M
J11	Power Isolation and Current Measurement	**ON**	Connect GS1500M power supplies to the 3.3 V supply source
		OFF	Isolate GS1500M from power supplies. J11 can be used to measure the energy consumption of the VBAT, VDDIO and EN_1V8 supplies to the GS1500M.

Jumper	Option	Setting	Description
J14	RS232 Transceiver Force-off	ON	RS232 transceiver operates in normal mode
		OFF	RS232 transceiver forced off
J15	UART CTS Isolation	ON	Connect UART0_CTS from GS1500M to RS232 transceiver
		OFF	Disconnect UART0_CTS from RS232 transceiver

Visit **freescale.com/TowerWiFi** for the software and documentation necessary to get started. Here, you'll find additional information, including:

- TWR-WIFI-GS1500M user guide
- TWR-WIFI-GS1500M schematics
- Tower System fact sheet
- Pre-compiled example application
- TWR-WIFI-GS1500M lab tutorial document
- TWR-WIFI-GS1500M serial-to-Wi-Fi reference application
- TWR-WIFI-GS1500M MQX™ enablement patch (future)

Support

Visit **freescale.com/support** for a list of phone numbers within your region.

Warranty

Visit **freescale.com/warranty** for complete warranty information.

For more information, visit freescale.com/Tower

Join the online Tower community at towergeeks.org