

GS1010 Evaluation Kit

A complete platform for evaluating GainSpan's wireless system-on-a-chip and embedded software

Product Overview

The GS1010 Evaluation Kit offers a quick and easy way for customers to evaluate the capabilities of GainSpan's GS1010 ultra-low-power wireless system-on-a-chip and embedded platform software for Wi-Fi* sensor networks.

The GS1010 device is a highly integrated ultra-low-power wireless system-on-a-chip (SOC) that contains a 802.11 radio, media access controller (MAC) and baseband processor, on-chip flash memory and SRAM, an application processor and a rich set of peripheral I/Os all in a single small footprint package. GainSpan's platform software, embedded in the GS1010 device, provides a complete wireless sensor node software solution that is highly power efficient, extending battery life to several years.

GainSpan's silicon and software solution offers a highly scalable, reliable, manageable and secure wireless link to meet the growing demand of wireless sensor networks utilizing the ubiquitous Wi-Fi network infrastructure.

The GS1010 Evaluation Kit includes all the hardware and software required to quickly evaluate GainSpan's unique wireless sensor network technology for use in a broad range of applications in industrial, commercial, residential, healthcare, metro and other markets.

The evaluation kit contains a GainSpan GS1010-based wireless temperature and light sensor node reference board powered by a single AA battery, a pocket-sized 802.11b/g access point and demo application software. The evaluation kit provides a complete platform for monitoring temperature and light over a Wi-Fi network.



Evaluation Kit Contents

- One GainSpan GS1010-based temperature and light sensor node reference board
- One 3.6V Lithium battery size AA
- One USB-to-serial cable for node provisioning and configuration via PC
- One pocket-sized 802.11b/g access point
- One USB memory stick containing GainSpan software and documentation
- Reference design schematics and BOM
- PC-based demo application software

Features and Benefits

Features	Benefits
IEEE 802.11 Wi-Fi network solution	<ul style="list-style-type: none"> • Lowers total cost of ownership (TCO) in network implementation and management • Seamlessly integrates with ubiquitous Wi-Fi infrastructure for ease-of-use and reliability • Leverages 802.11 wireless security, manageability, and quality of service features
Ultra-low-power operation	<ul style="list-style-type: none"> • Extends battery life to several years • Enables use of low-cost battery
GS1010 wireless system-on-chip (SoC) and embedded sensor node software	<ul style="list-style-type: none"> • Complete silicon and software solution enables faster time-to-market • Ultra small form-factor reduces board space • Device drivers and APIs reduce customers' application software development time and cost
Demo application software for Windows* <ul style="list-style-type: none"> • Sensor configuration • Sensor data display • Sensor firmware update 	<ul style="list-style-type: none"> • Enables quick and easy demonstration and evaluation of wireless sensor node solutions using GainSpan silicon and software technology
Wi-Fi access point included in eval kit	<ul style="list-style-type: none"> • Enables quick and easy setup of wireless sensor network for demonstration and evaluation
USB-to-serial cable included in eval kit	<ul style="list-style-type: none"> • Enables easy configuration from a PC host

GS1010 Reference Board Specifications

Radio Protocol	IEEE 802.11b/g compatible
RF Output Power (Typical)	9dbm with integrated power amplifier
RF Operating Frequency	2.4 – 2.497 GHz
Antenna Specifications	2.45GHz, 50-ohm monopole with SMA connector
Sensor Types	Temperature and light
I/O Port	6-pin serial UART interface, 15540 compatible Cable to connect to host PC USB port included
Power Source	3.6V, 2100mAh Lithium battery size AA (included)
Physical Dimensions	Length: 2.36 in; Width: 1.39 in; Height: 1.04 in

Ordering Information

GS1010-EVAL-TLS	GS1010 Evaluation Kit – Wireless Temp & Light Sensor Network Includes one GS1010 reference board, AP/router, cables, software and docs
GS1010-REF-TLS	GS1010 Reference Board – Wireless Temp & Light Sensor Node Order this part number to add multiple GS1010 sensor nodes to your network

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