ULTRA-LOW POWER EMBEDDED WI-FI MODULES

- Low Power Wi-Fi connectivity to embedded devices
- Operates with standard 802.11 b/g/n access points
- Highly integrated Wi-Fi stack including WPA2-Personal/Enterprise security
- Full networking stack including UDP, TCP/IP, HTTP(S)/DHCP/DNS server and client
- Few µA of standby current, <10 ms wake up latency for battery operated applications
- Easy provisioning using Access Point mode / Wi-Fi Protected Set-Up (WPS)
- Supports over the air firmware upgrade
- FCC, IC, ETSI certified modules

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Output Power</th>
<th>Antenna</th>
<th>Host Interface</th>
<th>Features</th>
<th>Size (mm x mm)</th>
<th>Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS1011MIP</td>
<td>9 dBm</td>
<td>PCB Trace</td>
<td>UART or SPI</td>
<td>Low Power</td>
<td>22.8 x 32.5</td>
<td>48 pins soldered down</td>
</tr>
<tr>
<td>GS1011MIE</td>
<td>9 dBm</td>
<td>External (u.FL)</td>
<td>UART or SPI</td>
<td>Low Power</td>
<td>22.8 x 32.5</td>
<td>48 pins soldered down</td>
</tr>
<tr>
<td>GS1011MEP</td>
<td>18 dBm</td>
<td>PCB Trace</td>
<td>UART or SPI</td>
<td>Extended Range</td>
<td>22.8 x 36.8</td>
<td>48 pins soldered down</td>
</tr>
<tr>
<td>GS1011MEE</td>
<td>18 dBm</td>
<td>External (u.FL)</td>
<td>UART or SPI</td>
<td>Longest Range</td>
<td>22.8 x 36.8</td>
<td>48 pins soldered down</td>
</tr>
<tr>
<td>GS1500M</td>
<td>14 dBm</td>
<td>Selectable Trace and External (u.FL)</td>
<td>UART or SPI</td>
<td>802.11 b/g/n</td>
<td>22.8 x 36.8</td>
<td>48 pins soldered down</td>
</tr>
<tr>
<td>GS1011MIC</td>
<td>9 dBm</td>
<td>PCB Trace</td>
<td>UART</td>
<td>Telec Certified</td>
<td>20 x 35</td>
<td>30 pins connector</td>
</tr>
<tr>
<td>GS1011MPS</td>
<td>9 dBm</td>
<td>PCB Trace</td>
<td>UART or SPI</td>
<td>Low Power, Small Footprint</td>
<td>19.4 x 28.7</td>
<td>36 pins soldered down</td>
</tr>
<tr>
<td>GS1011MEPS</td>
<td>18 dBm</td>
<td>PCB Trace</td>
<td>UART or SPI</td>
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</table>
**CHIPS**
GS1011 SOC

**FEATURES:**
- Operates with standard 802.11 b/g/n access points
- As low as 1.2µA of standby current with less than 10ms wake up latency from standby for battery operated applications
- WEP, WPA/WPA2 Personal and Enterprise security with AES hardware encryption
- TCP/IP, UDP, HTTP(S)/ DHCP/ DNS Server and client, SNMP
- Location Awareness
- Industrial Temperature: -40 to +85°C

**SOFTWARE DEV KITS (SDK)**
GSXXXXMXX-SDK2-BASIC/PRO

**EVALUATION KITS (EVK)**
GSXXXX-EVK2-S2W-WEB

**MODULES**
(Selector guide on reverse side)

**Evaluation Board included in the evaluation kit features:**
- Single board supporting all similar pin compatible modules
- UART, SPI or RS-232 interfaces
- External SPI flash for reliable OTA firmware upgrade
- Push button for alarms, WPS and factory firmware restore
- Easy toggle between battery and DC line power
- Temperature and Light sensors
- Preloaded firmware with
  - Serial to Wi-Fi interface application
  - Embedded HTTP server with Wi-Fi and IP network configuration pages
  - Limited Access Point mode

The Evaluation Kit also includes:
- Terminal Emulator, Network Protocol Analyzer, Firmware upgrade tools, and Application demo software
- Pre-configured Access Point
- USB to UART cable for PC interface

**SDK-BASIC INCLUDES:**
- Evaluation, Development & Production License and 1 year subscription for software maintenance, upgrades and technical support
- Wireless LAN firmware (binary)
- GainSpan Embedded Platform Software (GEPS) in linkable object code:
  - Green Hills µ-velOSity™ RTOS and network stack code
  - GainSpan Node Software, 802.11i supplicant, HTTP server/ client, SSL, WPS
- Sample Application code (source)
  1 year Green Hills Multi - IDE SW (debugger, compiler), Node-locked license
  Development hardware, Wi-Fi AP and Macraigor JTAG USBWiggler

**SDK-PRO INCLUDES:**
Same as above except for:
- GEPS is provided in source code
- Dongle-Locked license for Green Hills IDE
- 2 days of training

**MODELS**
- GS1011MXX
- GS1500M
- GS1011MIC
- GS1011MXXS
- GS1011MXXS

**Networking Services**
- SPI
- UART
- ARM7 CPU
- WLAN Transceiver
- Power Amplifier

**Power Amplifier**
- Optional Ext Power Amp
- PA/DAC
- RF Switch
- 44MHz XTAL
- Power Control
- 1.8V
- Wake Up
- 32/131kHz XTAL
- Battery (3.6V – 1.2V)

**Please note:**
Images are not to scale