

HDG104 – Wi-Fi 802.11b/g System in Package, Optimized for embedded applications

APPLICATIONS

Home Automation

The HDG104 Wi-Fi solution is supported on leading Microcontroller Unit (MCU) platforms for quick start for developers that want to enter the home automation market such as AMR, surveillance, access control or general home appliances.

Industry Sensor Networks

WiFi in combination with Microcontroller platforms (MCU) can easily be installed and used for Industry sensors or remote control thanks to the pre-integration of the EVK and the availability of Wi-Fi infrastructure.

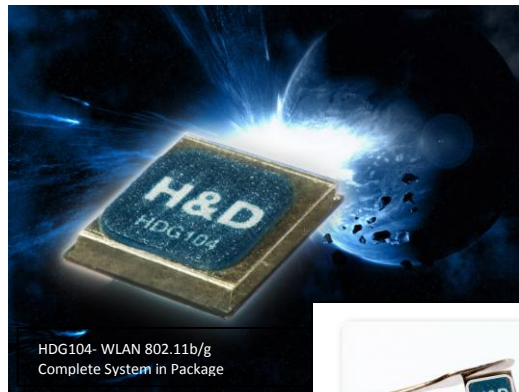
Media Applications

In all media applications the problem of how to access and change the media is easily solved with Wi-Fi and with the high speed and security functions of 802.11, media such as mp3, IP-radio or video are



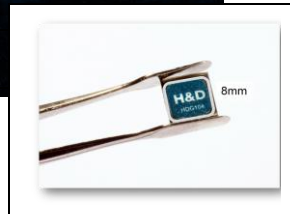
H&D Wireless AB, official Atmel Wi-Fi partner

Most of "things" to be connected to Internet use Microcontrollers. The Wi-Fi solution, HDG104 WLAN 802.11b/g by H&D Wireless AB is supported on leading Microcontroller platforms, enabling a new variety of OEM/ODM applications with low Customer design effort and cost. The solution provides Customers with quickest time to market possible!



HDG104- WLAN 802.11b/g Complete System in Package

Photo: The HDG104 is fully FCC and CE compliant. Pre- tested, calibrated and certified resulting in lowest possible production and system cost



KEY FEATURES INCLUDE:

- **Smallest and complete system functionality WLAN 802.11b/g component in the market: 56mm²**
- **Lowest power consumption solution in the market for embedded applications.**
- **Supported on leading Microcontroller Unit (MCU) platforms**
- **High RF output TX power and RX sensitivity**
- **Supports multiple SW features incl 802.11e/i (Security, Quality of Service)**
- **External chips:40MHz (or from system)**
- **No RF trimming needed**
- **32KHz from host CPU**
- **The HDG104 solution is provided with a unique SW API (o)WL © TM - a complete programming interface for embedded Wi-Fi applications**

H&D Wireless SW API:
wl_api is copyright under (o)WL ©



- **FCC and CE approved**



- Data Rates: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54Mbps
- Modulation: QPSK, 16QAM, 64QAM DBPSK, DQPSK, CCK, OFDM with BPSK
- WEP and AES hardware encryption accelerator up to 128 bit.
- On-chip RF filter for the ISM band 2.4GHz
- An internal 32 kHz oscillator maintains real time in power save mode, allows the high frequency clock to be turned off.
- Extensive DMA hardware support for data flow to reduce CPU load.
- Low cost and low power consumption by use of Ultra Low Power (ULP) technology
- On-board 160 kB SRAM and 1 kB EEPROM eliminates need for external memory for firmware
- Internal Boot-ROM. This allows firmware to be downloaded into SRAM from the host
- Advanced power management for optimum power consumption at varying load.
- External interfaces including SDIO and SPI
- Supply voltage 2.75-3.6 V
- RoHS Compliant

ORDER INFORMATION:

Part No#: HDG104/x
/1:Bag
/2:Tape & Reel
/3:Tray

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