

IEC6828T WiFi 802.11g/b Single System Module

DESCRIPTION

With a small form factor of 25×25×2.8mm (max.), the IEC6828T is a full-featured 802.11g/b WiFi single system module that includes support for high linear output power, IEEE 802.11i security, IEEE 802.11e QoS, and hard-wired WiFi-Bluetooth co-existence. By providing SDIO (1-bit, 4-bit, and SPI) host interface combined with support for WinCE and Linux operating systems, the IEC6828T enables rapid integration of WiFi technology into a variety of host devices. The pre-tested module eliminates the need to create custom WLAN designs, resulting in greatly reduced development risk, costs and time-to-market.

FEATURES

- Small footprint: 25×25×2.8mm (max.) 28pins castellation
- IEEE 802.11g/b compliant
- Frequency band: 2.4 to 2.472GHz (1 to 13 channels)
- 11b data rates: 1, 2, 5.5, 11 Mbps
- 11g data rates: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps
- Modulation: DSSS (CCK, DQPSK, DBPSK) and OFDM (BPSK, QPSK, 16QAM, 64QAM)
- Host interface:
 - SDIO: SDIO 1-bit, SDIO 4-bit, SDIO SPI
- Support for IEEE 802.11e QoS
- Support for IEEE 802.11i advanced security
- Multiple power saving modes to maximize battery life
- Dual 60MIPS RISC processors integrated for host

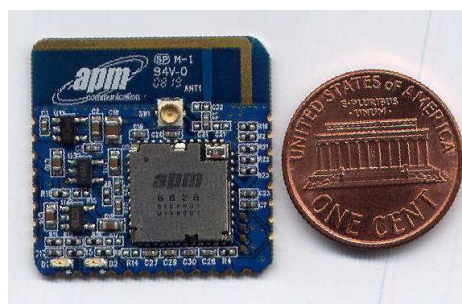
offload of all 802.11 functions

- Support for advanced WiFi-Bluetooth co-existence, including antenna sharing capability, and VoIP optimizations
 - Support for Fixed Mobile Convergence - UMA (Unlicensed Mobile Access) and IMS (IP Multimedia Subsystem)
 - GSM/GPRS/DCS/PCS/WCDMA/GPS radio non-interference
 - Either on-module PIFA antenna or external passive antenna supported
 - LDO regulator, PIFA antenna, crystal, EEPROM, and full RF front end integrated
 - Embedded OS supported
 - RoHS compliant
 - FCC Compliance:
 - EMI: FCC Part 15 Subpart B
 - RF: FCC Part 15 Subpart C
- Canada:**
- EMI: ICES-003
 - RF: IC RSS-210

APPLICATIONS

- WiFi plug-in modules for non-wireless systems
- Smartphone / PDA / PDA phone / WiFi phone / DSC / DVC with WiFi connectivity
- Printer Server / Multifunctional peripheral with WiFi connectivity

APPEARANCE



1 Precautions for FCC approval

This module has been prepared for modular approval TX FCC ID: **XD9-IEC6828T** .

The module is measured compliant to the following specifications:

FCC:

EMI: FCC Part 15 Subpart B

RF: FCC Part 15 Subpart C

Canada:

EMI: ICES-003

RF: IC RSS-210

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Other Conditions

This device is intended only for OEM integrators under the following conditions:

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users. For laptop installations, the antenna must be installed to ensure that the proper spacing is maintained in the event the users places the device in their lap during use (i.e. positioning of antennas must be placed in the upper portion of the LCD panel only to ensure 20 cm will be maintained if the user places the device in their lap for use) and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.

As long as the 2 conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

**CAUTION:**

- This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter
- The end user should NOT be provided any instructions on how to remove or install the device

End Product Labeling

This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example access points, routers, wireless ASDL modems, and similar equipment).

The final end product must be labeled in a visible area with the following:

“Contains TX FCC ID: XD9-IEC6828T”

Additional Information that Must be Provided to OEM Integrators:

The end user should NOT be provided any instructions on how to remove or install the device."

2 Installation

The IEC-6828T module shall be installed as a component on the PCB of the end-user apparatus, as part of the electronic manufacturing process, using advanced SMD manufacturing techniques.

Note that the end-user of the final assembled product is neither expected nor allowed in any circumstance to remove, install or reinstall the IEC6828T component.

3 Order Information

Order Number	Description
IEC6828T-A	Support for on-module PIFA antenna
IEC6828T-C ^{Note 1)}	Support for external passive antenna (External antenna connector: MS156)

Note 1: IEC6828T-C is not approved for FCC and IC, it depends on the antenna used.

4 Sales and Service Centers

Please contact Independent Electronic Components A/S to get information about a sales and service center nearest your location.

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