

Summary

1.1 Overview

HL7401SG(Wireless module) is an intelligent module with low cost and high reliability which is mainly applied to intelligent home appliances. Module integrates quad-core CPU with operating frequency up to 1.3GHz, and also includes G31-2EE GPU with operating frequency up to 400MHz; Smart board built-in 4GB DDR4, 16GB EMMC Flash; Up to 1920×1080 resolution; Built in ISP that supports 5M MIPI-CSI camera; It can do speech recognition (debugging process), run Linux. The module has rich peripheral interfaces, and supports IEEE 802.11a /b/g/n/ac and BT 5.0 wireless interconnection technology.

1.2 Features

- Quad-core ARM A35 operating up to 1.5GHz;
- GPU G31-2EE operating up to 400MHz;
- 4GB DDR4, 16GB EMMC Flash;
- Support 1920*1080 resolution screen, MIPI-DSI;
- Support 5M camera, MIPI-CSI;
- 5×UART, 2×SPI, 3×I2C, 1×I2S, 8×MIC, 2×LINEOUT, 8×PWM, 2×USB(Partial interface reuse);
- 802.11 a/b/g/n/ac and BT 5.0;
- Support Wi-Fi / BT common internal PCB antenna;
- Working temperature : -10~60°C ;

1.3 Application

- Smart home appliances (e.g: Air conditioning, washing machine, refrigerator, oven, et)
- Intelligent Gateway



Smart speaker

FCC&IC regulatory compliance statement

§15.19 Statement

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.

RSS-Gen Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

l'appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage,
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

§15.21 Information to user

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure compliance statement

This Module complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ce matériel est conforme aux limites de dose d'exposition aux rayonnements, CNR-102 énoncée dans un autre environnement. cette equipment devrait être installé et exploité avec distance minimale de 20 entre le radiateur et votre corps.

Labelling Instruction for Host Product Integrator

Please notice that if the FCC and IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also

display a label referring to the enclosed module. For FCC, this exterior label should follow "Contains FCC ID: **2A4A3-HL7401**". In accordance with FCC KDB guidance 784748 Labeling Guidelines. For IC, this exterior label can use wording "Contains **IC: 32735- HL7401**".

§ 15.19 Labelling requirements shall be complied on end user device.

Labelling rules for special device, please refer to §2.925, § 15.19 (a)(5) and relevant KDB publications. For E-label, please refer to §2.935.

Installation Notice to Host Product Manufacturer

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application, a separate approval is required for all other operating configurations, including portable configurations with respect to §2.1093 and difference antenna configurations.

Antenna Change Notice to Host manufacturer

If you desire to increase antenna gain and either change antenna type or use same antenna type certified, a Class II permissive change application is required to be filed by us, or you (host manufacturer) can take responsibility through the change in FCC ID&IC ID (new application) procedure followed by a Class II permissive change application.

FCC other Parts, Part 15B Compliance Requirements for Host product manufacturer

This modular transmitter is only FCC authorized for the specific rule parts listed on our grant, host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

Host manufacturer in any case shall ensure host product which is installed and operating with the module is in compliant with Part 15B requirements.

Please note that For a Class B or Class A digital device or peripheral, the instructions furnished the user manual of the end-user product shall include statement set out in *§15.105 Information to the user* or such similar statement and place it in a prominent location in the text of host product manual. Original texts as following:

For Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.*
- Increase the separation between the equipment and receiver.*
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- Consult the dealer or an experienced radio/TV technician for help.*

For Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and



can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

“The device is restricted to indoor use when operation in the 5150-5350MHz frequency range”

For BT: 2400-2483.05MHz@5.33 dBm;

For 2.4G Wi-Fi: 2400-2483.05MHz@15.49 dBm;

For 5G Wi-Fi: 5150-5875MHz@14.71 dBm;