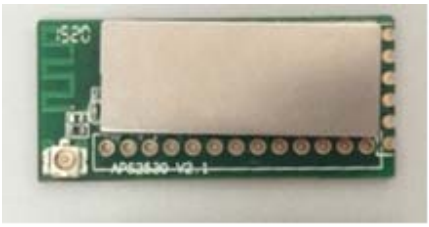
User Manual for APS2530S

The model used ZigBee PRO protocol to send RF signals for device communication. The model can be used after pairing with a dedicated device which was installed with a receiver dongle.

APS2530S was used as a dongle which need to be installed in customer's device. It offers UART to communicate with customer's device according predefined protocol.

1: product figure (APS2530S)



2: Technical specifications

RF operating frequency: 2405MHz ~ 2480MHz

Reference frequency: 2.400GHz

Channel spacing: 5MHz

Channel wide：2MHz

Modulation method: OQPSK

Communication rate: 250Kbps

Output power: 6.85dBm

Communication mechanism: applied ZigBee frequency hopping mechanism, passively frequency hopping.

Average operating current：<10mA

Operating voltage：2V-3.6V

Max remitting current: 20mA

Max rate：250Kbit/s

Receiving sensitivity： -95dbm

Receiving current：<24mA

Normal operating receiving distance： 100M

3: Warning

- Do not disassemble, repair, modify or replace the remote control Unit or any of its components.
  EF Radiation Exposure and Hazard Statement:
- To ensure compliance with FCC RF exposure requirement, this device must be installed in a location such that antenna of the device will b greater than 20cm away from all persons. Using higher gain antennas and types of antennas not covered under the FCC certification of this product is not allowed. Installers of the radio and end users of the product must adhere to installation instructions provided in this manual. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- Non-modification Statement:
  Use only the whip antenna supplied by the manufacturer when operating this device. Unauthorized antennas, modifications, or attachments, could damage the device and violate FCC regulations. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- Please comply with the national and international flight safety regulations when using device during your flight trip.
- Operating for this product is between -40°C~65°C.
  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
- This radio transmitter (IC: 20481- APS2530S, Model: APS2530S) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- Cet émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous avec le gain maximal admissible indiqué
  Les types d'antennes ne figurent pas dans cette liste, ayant un gain supérieur au gain maximum indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil
- Antenna Type: Ipex connector with the whip antenna
- Antenna Gain: 2.0dBi
- Hardware Version: APS2530 V2.1
- Software Version: Inverter_V2.0.5

- User manual of the end product:

  In the user manual of the end product, the end user has to be informed that the equipment complies with FCC radio-frequency exposure guidelines set forth for an uncontrolled environment. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the user manual: This device complies with Part 15 of 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.

  Important Note:

  In the event that these conditions cannot be met, such as the certain laptop configuration or co-location with another transmitter, and then this FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product any more. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product and obtaining a separate FCC authorization

  End product labeling:

  The transmitter module is authorized only for use in device where the antenna may be installed such that 20cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: “Contains FCC ID: 2AFGR- APS2530S”.

  Manual information to the end user:

  The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning statement as they are shown in this manual

  IC Radiation Exposure Statement:

  This module complies with the relevant IC radiation exposure limits set forth for an uncontrolled environment. This module should be installed and operated with the minimum distance 20cm between the radiator and the end user.

  Ce module est conforme aux limites IC d'exposition aux radiations pertinentes énoncées pour un envi incontrôlée. Ce module doit être installé et utilisé avec le 20cm de distance minimale entre le radiateur et l'utilisateur final

  Important Note:

  In the event that these conditions cannot be met, such as the certain laptop configuration or co-location with another transmitter, and then the IC authorization is no longer considered valid and the IC number cannot be used on the final product any more. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product and obtaining a separate IC authorization.

Dans le cas où ces conditions ne peuvent être remplies, telles que la configuration de l'ordinateur portable ou certains co-localisation avec un autre émetteur, et puis l'autorisation de circuit intégré est plus considéré comme valide et le nombre IC peut pas être utilisé sur le produit final plus. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final et l'obtention d'une autorisation IC séparée.

End product labeling:

The transmitter module is authorized only for use in device where the antenna may be installed such that 20cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: “Contains IC: 20481-APS2530S”.

Le module émetteur est autorisé uniquement pour une utilisation dans le dispositif où l'antenne peut être installé de telle sorte que 20cm peut être maintenue entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans un endroit visible avec le suivant

Contient IC: 20481-APS2530S

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning statement as they are shown in this manual.

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final sur la façon d'installer ou supprimer ce module RF dans le mode d'emploi du produit final qui intègre ce module. L'utilisateur final manuel doit comprendre toutes les mesures réglementaires de présentation d'informations / d'avertissement requis comme ils sont présentés dans ce manuel

This device complies with Industry Canada’s licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présentappareilestconforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitationestautorisée aux deux conditions suivantes :

(1) l’appareil ne doit pas produire de brouillage;

(2) l’utilisateur de l’appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d’encompromettre le fonctionnement.