

User Manual

Wireless console module

Model: Foenix-xx series

XX = A,N,AN,

FCCID: YAI-CIC22101 IC ID: 20480-CIC22101



Foenix Basic Info

Getting to Know Wireless console module

Features

The product under test (EUT) is designed and manufactured a complete all-in-one module, running Android 8 supporting. The module will be mounted to indoor exercise equipments and serve as a system console. The supporting Wireless are 802.11 a/b/g/n/ac 2x2 MIMO and Bluetooth 2.1 EDR, BLE 4.2, ANT+, NFC and Ethernet Mega network access, the equipment can't function with battery, the power is from external 12V DC power adapter

It uses MediaTek MT8167A Application Processor for multimedia enhancement purpose it have a 64-bit Quad-core processor integrated, operation frequency is ARM-A35 @ 1.5GHz, It needs an 26MHz crystal of reference frequency, this crystal also used for RF chip. This chip is responsible to control RF-Baseband Transceiver.

HW I/O Specification

Specification	Description
Input Power	
Input	DC 12V/ 4.2A
Sensors	
G sensor	BOSCH BMA253
I/O Connector	
USB 2.0	USB2.0.
RJ45 LAN port	10/100 Mbps
RS232 port	Baud Rate : 115200 bps
Communication	Wireless supported
WiFi	802.11 a/b/g/n/ac (MT7668ASN)
Bluetooth	V4.2 with BLE, class 2 (MT7668ASN)
ANT+	USB ANT+ (NORDIC nRF24AP2)
NFC	NFC (PN150)



How to Process Foenix:

Foenix is base on Android 8.1 OS, to access Foenix, please install display share tools in PC If you have no ADB driver, You can find ADB driver from web side or download form <u>android link</u>

There are many APPs you can use, you can download tools from web side: For example:

1. Google Vyser

Vysor lets you view and control your Android on your computer. Easy peasy.

Please find Vysor App under link: http://www.vysor.io/download/

2. Scrcpy APP,

This application provides display and control of Android devices connected on USB (or over TCP/IP). It does not require any *root* access. It works on *GNU/Linux*, *Windows* and *MacOS*

Please find scrcpy App under link: https://github.com/Genymobile/scrcpy

Getting Started

The equipment can function with external DC power input only, and no battery included. Once you've plug in the DC adapter, you can turn on your Foenix and start using it.

Set up your Foenix for the first time

When you turn on the Foenix for the first time, you will be requested to connect to your Internet connection if any.

Please follow the instruction showed on the Foenix.

Home



The Home screen is your starting point for using the applications on your Foenix.



There are many programs on applications,

Enjoy the Foenix!!



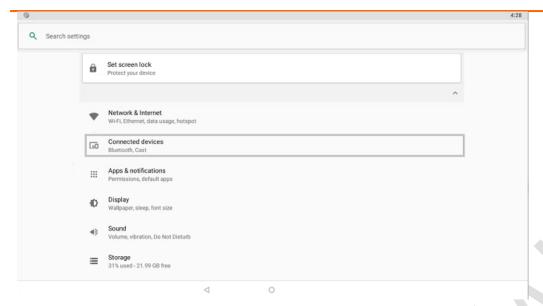
Setting Wireless connection:

1. Quick setting: Swipe down to show quick setup options



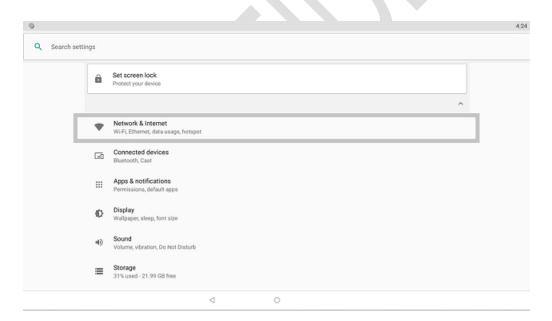
2.1 Normal setting: To have LAN, WLAN and BT connection





- 1. Make device discoverable: Under "Settings", choose "Connected devices". Tap "Bluetooth" to turn on it and tap "Search for devices". The Bluetooth indicator then appears in the status bar.
- 2. Scan for devices: After scanning, there will be a list of the IDs of all available Bluetooth devices in range. If the device you want to pair with isn't in the list, ensure that the other device is turned on and set to be discoverable.
- **3.** Pair with the Bluetooth device: Tap the name of an available Bluetooth device to pair with. In the popup "Bluetooth pairing request" dialog, type a PIN. If the pairing is successful, your Foenix connects to the device.

2.2 Normal setting: To have WLAN



- 1. **Make device discoverable**: Under "Settings", choose "Network and internet". Tap "Wi-iFi" to turn on it and Searching Access Point devices.
- 2. **Scan for device**s: After scanning, there will be a list of the APs SSID of all available APs devices in range. If the device you want to connect with isn't in the list, ensure that the other device is turned on and set to be discoverable.
- **3. Connect to the WLAN APs**: Tap the name of an available Bluetooth device to pair with. In the popup "Bluetooth pairing request" dialog, type a PIN. If the pairing is successful, your Foenix connects to the device.



2.3 Normal setting: To have Ethernet connect

- 1. **Make device discoverable**: Under "Settings", choose "Network and internet".
- 2. Tap "Ethernet" to turn on it and Get IP from DHCP server.



Federal Communication Commission Interference Statement

15.19

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.

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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.

15.21

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible

FCC RF Radiation Exposure Statement:

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module. 20cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. 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 users 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.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following "Contains TX FCC ID: YAI-CIC22101". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: 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.



Industry Canada statement:

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 présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée 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.

Industry Canada ICES-003 Compliance Label:

CAN ICES-3 (B)/NMB-3(B

Co-located

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

The transmitter may not be co-located with any other transmitter or antenna

- (i) the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems; f
- (ii) or devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and
- (iii) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

Co-situé

Cet appareil et son antenne (s) ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou émetteur.

Le émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

- (i) l'appareil pour fonctionner dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire les risques d'interférences nuisibles à la co-canal systèmes mobiles par satellite;
- (ii) pour les appareils avec antenne (s) détachable, le gain d'antenne maximal autorisé pour les appareils dans la bande 5725-5850 MHz doit être telle que l'équipement satisfait encore la pire limites spécifiées pour le point-à-point et non point-à-point, le cas échéant; opération et (iii) l'angle d'inclinaison du pire (s) nécessaire pour rester conforme à la pire exigence de masque d'élévation énoncées dans la section 6.2.2 (3) doit être clairement indiqué.

Radiation Exposure Statement:

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 cannot be met (for example certain laptop configurations or co-location with another transmitter), then the IC authorization is no longer considered valid and the IC No. cannot 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 IC authorization.

Déclaration d'exposition aux rayonnements:

L'intégrateur OEM est toujours responsable du test de son produit final pour toutes les exigences de conformité supplémentaires requises avec ce module installé (par exemple, émissions de périphériques numériques, exigences des périphériques PC, etc.).

REMARQUE IMPORTANTE: Si ces conditions ne peuvent être remplies (par exemple, certaines configurations d'ordinateur portable ou la co-implantation avec un autre émetteur), l'autorisation IC n'est plus considérée comme valide et le numéro IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera responsable de réévaluer le produit final (y compris l'émetteur) et d'obtenir une autorisation IC distincte.

USERS MANUAL OF THE END PRODUCT:

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's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.

LABEL OF THE END PRODUCT:

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains transmitter module IC: 20480-CIC22101.

ETIQUETTE DU PRODUIT FINAL:

Ce module émetteur est autorisé uniquement pour être utilisé dans un appareil où l'antenne peut être installée de telle sorte que 20 cm puissent être maintenus entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans une zone visible avec les éléments suivants: «Contient le module émetteur IC: 20480-CIC22101.