PIXMOB

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1. PixMob Hub

The PixMob Hub is the combination of previous PixMob gears which are: Broadcaster, Bridge, and Beacon.

- The Broadcaster is a Bluetooth transmitter/receiver
- The Beacon is a 900 MHz transmitter/receiver
- The Bridge is a network connection
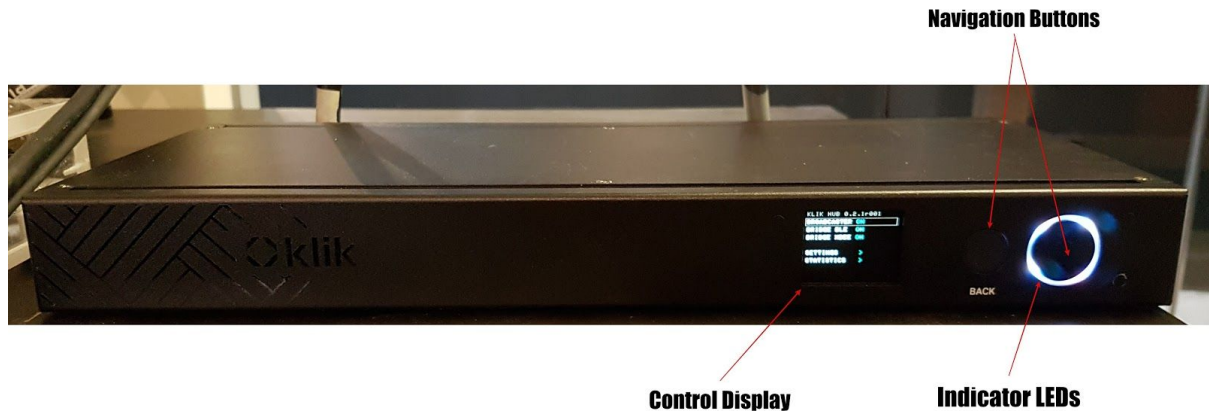
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AC IN: Powercon IN (110V - 220V AC)
ANT 1:   900 MHz antenna connector (Male RPSMA type)
USB: USB port
ETHERNET: RJ-45 Ethernet connector
DMX B: DMX XLR5 OUT
DMX A: DMX XLR5 IN
ANT 2:   Bluetooth antenna connector (Male RPSMA type)

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2. **FCC Statements**

FCC ID: 2ADS4HUB1
Contains FCC ID: MCQ-XB900HP

This device complies with part 15.247 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.

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

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.
—Consult the dealer or an experienced radio , technician for help.

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3. IC Statements

IC

IC: 7254A-HUB1
Contains IC: 1846A-XB900HP

This device complies with Industry Canada licence-exempt RSS 247 standard. 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.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS 247. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

This class B digital device complies with Canadian ICES-003
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, Users and installers must be provided installation instuctions and transmitter operating conditions for satisfying RF exposure compliance.

Avertissement Conformité à l'exposition RF
L'antenne (s) utilisée (s) pour cet émetteur doit être installée pour assurer une distance de séparation d'au moins 20 cm de Personnes et ne doivent pas être co-situés ou fonctionner conjointement avec une autre antenne ou émetteur. Utilisateurs et Les installateurs doivent être munis d'instructions d'installation d'antenne et de conditions d'exploitation de l'émetteur pour Conformité à l'exposition RF.

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4. Installation

This picture shows the different connections of the Hub.
Note: The equipment will be professionally installed

• ANT1 is for the 900 MHz antenna
• ANT2 is for the 2.4 GHz Bluetooth antenna
• Replace fuse with rating of 250V, 4A or 5A only.

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5. HUB menus

a. Home screen

When powering up, the Main Menu will be displayed on the Control Display.

- On the top line, you have the version information
- Navigation button is used to navigate thru the menu
- LEDs indicator shows the same color as the DMX signal being broadcast
- BACK: used to return to the previous menu
- BROADCASTER, BRIDGE BLE, BRIDGE XBEE can be individually turned on & off by pressing the center button of the navigation button, select the state by rolling the button and press the center button again to confirm
- SETTINGS: access to the Settings menu
- STATISTICS: access to the Statistics menu

b. Settings Menu

- HUB IP: the IP address when the Hub is connected to a network
- XBEE MAC: the Mac Address of the 900 MHz module
- TARGET SERVER: access to the Target Server menu
- BEACONS: access to the Beacons menu
- DMX: access to the DMX menu
- BRO mode: selection between DMX PRO2, Tracking, Silence

c. Target Server Menu

- HOST1/HOST2: Choice between None, Production, Staging, Test, LOCAL
- PORT1/PORT2: Enter the Port number of the Server
- STATUS1/STATUS2: Indicates if the Server is connected or disconnected
- LOCAL: Enter the IP Address of the Local connection

d. Beacons Menu

1. LINK BEACONS: Press on the Navigation Button to link all the Beacons that are in the Hub range. The LINK BEACONS line will turn red. The number of linked Beacons will appear on the COUNT line. Press again on the Navigation Button to stop linking Beacons. The linked Beacons will still be linked until the Hub is powered down.

e. BLE Menu

- RX GAIN: Adjust the receive gain. Range between 0 and 7 with 7 as the higher gain.
- TX GAIN: Adjust the transmitter gain. Range between 0 and 7 with 7 as the higher gain.

f. DMX Menu

- OFFSET: Set the Offset of the DMX signal
- SIZE: Set the Size of the DMX signal

g. Statistics Menu

This screen indicates all the valid inputs and outputs in packets/seconds. This is useful for troubleshooting.

- DMX in: Number of receiving DMX packets/seconds
- DMX out: Number of transmitting DMX packets/seconds
- ETH in: Number of receiving Ethernet packets/seconds
- ETH out: Number of transmitting Ethernet packets/seconds
- BLE in: Number of receiving Bluetooth packets/seconds
- BLE out: Number of transmitting Bluetooth packets/seconds
- XBee in: Number of receiving 900 MHz packets/seconds
- XBee out: Number of transmitting 900 MHz packets/seconds

6. Troubleshooting

The Statistics menu is used to troubleshoot the Hub.

When Broadcaster is On and DMX signal is sent to the Hub, there shouldn't be 0's at DMX In, DMX Out, and BLE out.

When Bridge BLE is On, Bluetooth signal is sent to the Hub and the Hub is connected to a Network, there shouldn't be 0's at BLE In, ETH In and ETH Out

When Bridge XBee is On and 900 MHz signal is sent to the Hub, there shouldn't be 0's at XBee In, ETH In and ETH Out.

Also, the Indicator LEDs should be the same color as the DMX signal received.

7. Hub characteristics

FREQUENCY BAND: 2400–2483.5 MHz, 902-928 MHz
RF POWER MAX(W):   Conducted 1 W
TYPE OF MODULATION: GFSK
POWER REQUIREMENTS: 120/220VAC 50/60Hz
ANTENNAS INFORMATION: 2.4 GHz Gain 4.9 dBi. The EUT is professionally installed.
                                        900 MHz Gain 3 dBi. The EUT is professionally installed.
BODY DIMENSION: 42 cm x 17 cm x 4.5 cm (L, W, H)
WEIGHT: 1.4 kg
COLOR: Black