

# **WM-BN-BM-22**

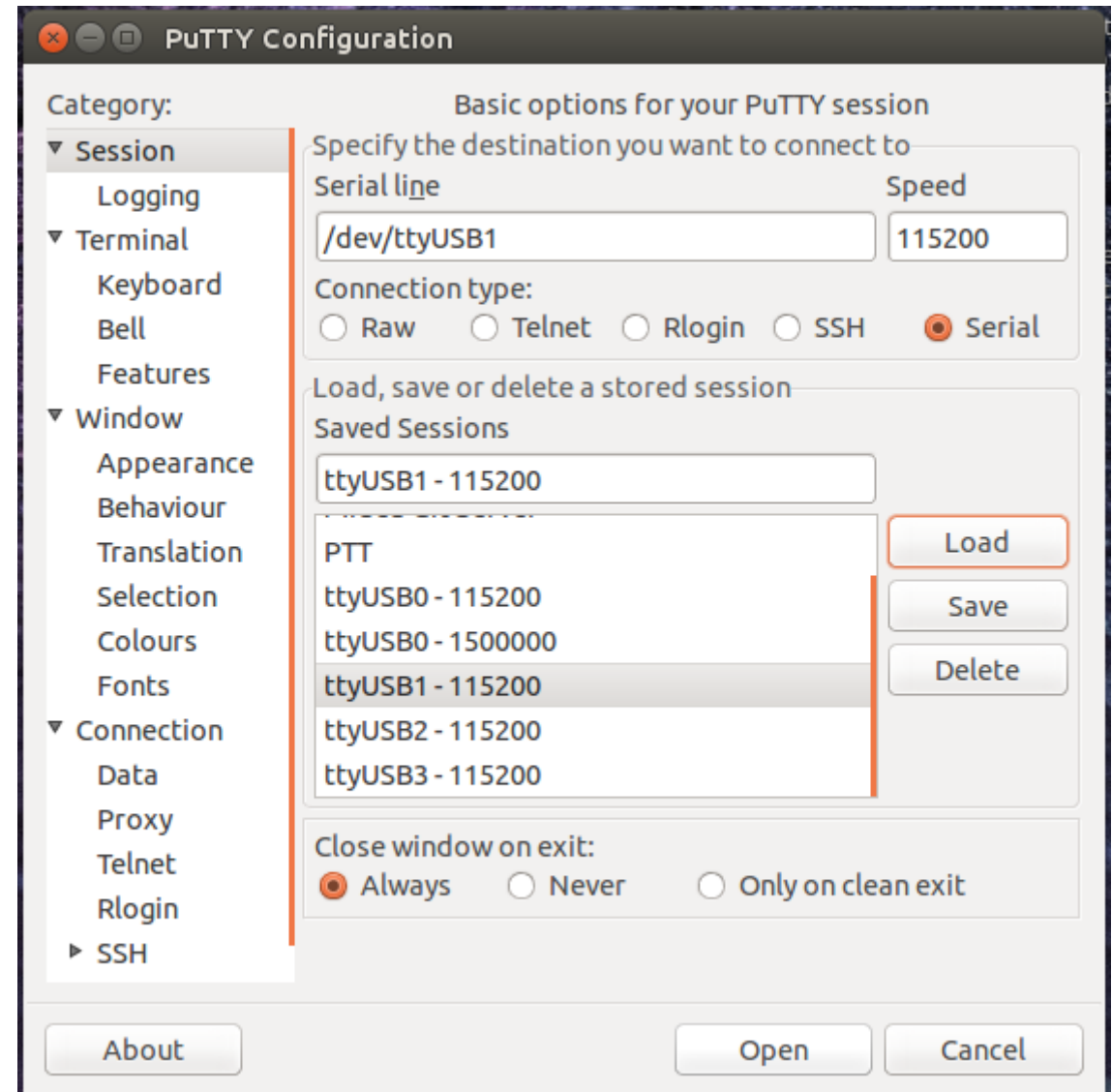
## **OEM/Integrators Installation Manual**

Mar 2, 2018

PMN : Wireless IoT module

# Connect To Device

- Open Terminal
  - Baud Rate: 115200 , 8N1



# Start AP

- **Start a soft AP**

- SSID: USI\_test
- Security: WPA2\_AES
- Key: 12345678
- Channel: 6

- **Command:**

- `start_ap USI_test wpa2_aes 12345678 6`

# Start AP

```
/dev/ttyUSB1 - PuTTY  
  
>  
> start_ap USI_test wpa2_aes 12345678 6  
IPv4 network ready IP: 192.168.0.1  
Setting IPv6 link-local address  
IPv6 network ready IP: FE80:0000:0000:0000:000A:F7FF:FE3E:5F44  
> █
```

# Connect to AP

- Select the SSID in AP list of Ubuntu.
  - USI\_test
- Key in the key:
  - 12345678

# Ping to test connection

```

jeff@jeff-desktop: ~
UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
RX packets:8 errors:0 dropped:0 overruns:0 frame:0
TX packets:108 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:1552 (1.5 KB)  TX bytes:20512 (20.5 KB)

jeff@jeff-desktop:~$ ping 192.168.0.1
PING 192.168.0.1 (192.168.0.1) 56(84) bytes of data.
64 bytes from 192.168.0.1: icmp_seq=1 ttl=128 time=53.8 ms
64 bytes from 192.168.0.1: icmp_seq=2 ttl=128 time=8.00 ms
64 bytes from 192.168.0.1: icmp_seq=3 ttl=128 time=49.2 ms
64 bytes from 192.168.0.1: icmp_seq=4 ttl=128 time=7.70 ms
64 bytes from 192.168.0.1: icmp_seq=5 ttl=128 time=35.9 ms
64 bytes from 192.168.0.1: icmp_seq=6 ttl=128 time=10.1 ms
64 bytes from 192.168.0.1: icmp_seq=7 ttl=128 time=25.0 ms
64 bytes from 192.168.0.1: icmp_seq=8 ttl=128 time=8.59 ms
64 bytes from 192.168.0.1: icmp_seq=9 ttl=128 time=9.81 ms
64 bytes from 192.168.0.1: icmp_seq=10 ttl=128 time=7.63 ms
64 bytes from 192.168.0.1: icmp_seq=11 ttl=128 time=10.9 ms
^C
--- 192.168.0.1 ping statistics ---
11 packets transmitted, 11 received, 0% packet loss, time 10013ms
rtt min/avg/max/mdev = 7.633/20.634/53.817/16.881 ms
jeff@jeff-desktop:~$

```

- **Important Notice to OEM integrators**

- 1. This module is limited to OEM installation ONLY.
  - 2. This module is limited to installation in mobile or fixed applications, according to Part 2.1091(b).
  - 3. The separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations.
- 
- **End Product Labeling**
  - When the module is installed in the host device, the FCC/IC ID label must be visible through a window on the final device or it must be visible when an access panel, door or cover is easily re-moved. If not, a second label must be placed on the outside of the final device that contains the following text: “Contains FCC ID: COFWMBNBM22”
  - “Contains IC: 10293A-WMBNBM22 “
  - The FCC ID/IC ID can be used only when all FCC/IC compliance requirements are met.

- **Antenna Installation**
- **(1) The antenna must be installed such that 20 cm is maintained between the antenna and users,**
- **(2) The transmitter module may not be co-located with any other transmitter or antenna.**
- **(3) The PIFA antenna with 0.56 dBi gain was verified in the conformity testing. Radiated transmit power must be equal to or lower than that specified in the FCC/IC Grant of Equipment Authorization for FCC ID: COFWMBNBM22 and IC: 10293A-WMBNBM22. A separate approval is required for all other antenna type, or higher gain antenna.**
- **In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC/IC authorization is no longer considered valid and the FCC ID/IC ID 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 FCC/IC authorization.**



- **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'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.
- **Federal Communication Commission Interference 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.
- 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 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.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## ◦ 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, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."
- CAN ICES-3(B)/ NMB-3(B)
- Radiation Exposure Statement
- This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

- **For FCC Part 15.31 (h) and (k): The host manufacturer is responsible for additional testing to verify compliance as a composite system. When testing the host device for compliance with Part 15 Subpart B, the host manufacturer is required to show compliance with Part 15 Subpart B while the transmitter module(s) are installed and operating. The modules should be transmitting and the evaluation should confirm that the module's intentional emissions are compliant (i.e. fundamental and out of band emissions). The host manufacturer must verify that there are no additional unintentional emissions other than what is permitted in Part 15 Subpart B or emissions are complaint with the transmitter(s) rule(s).**
- **If the host manufacturer needs help in ensuring compliance with Part 15 Subpart B requirements, the grantee will provide assistance.**

# Thank You

[www.usish.com](http://www.usish.com)

Realizing IDEAS Together