2.0 Quick Start

This QUICK START guide will walk you through the setup and configuration of a few basic applications. The QUICK START will rely on the *WebUI* for configuration. This walkthrough also assumes the units used are installed in microhard interface/ development boards or custom boards that allow access to the LAN port. See the appropriate section for pin-outs.

Note that the units arrive from the factory with a Radio Configuration of 'Master' and the Local Network setting configured as 'Static' (IP Address **192.168.168.1**, Subnet Mask 255.255.255.0). DHCP is enabled by default, and will assign an IP to a connected device or computer with DHCP enabled.

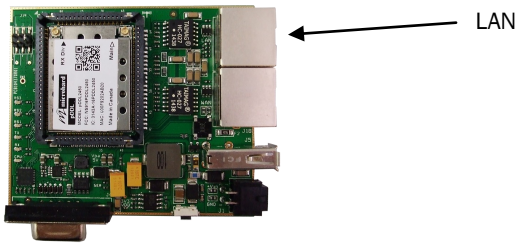
2.1 Getting Started

✓ Connect an appropriate Antenna to the ***ANTENNA*** connector of the pDDL.

✓ Connect and/or apply a suitable power source to the unit. Allow the unit to boot up fully, the CPU LED (Blue) should be on in a solid state

To reset to factory defaults, press and hold the CONFIG for 8 seconds with the pDDL powered up. The pDDL will reboot with factory default settings.

✓ Connect A PC to the ***LAN*** port (eth0) of the pDDL, using an Ethernet Cable.

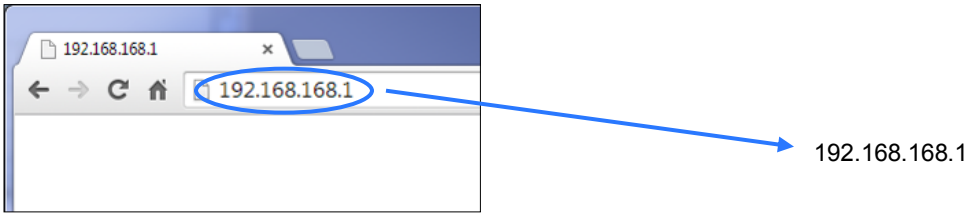


The factory default network settings:

IP: 192.168.168.1
Subnet: 255.255.255.0

✓ The PC must have its Network Setting (TCP/IP Properties) set to DHCP (The modem will assign a IP address to you), or STATIC with an IP Address of (e.g.) 192.168.168.10 and a Subnet Mask of 255.255.255.0.

✓ Open a Browser Window and enter the IP address 192.168.168.1 into the address bar.



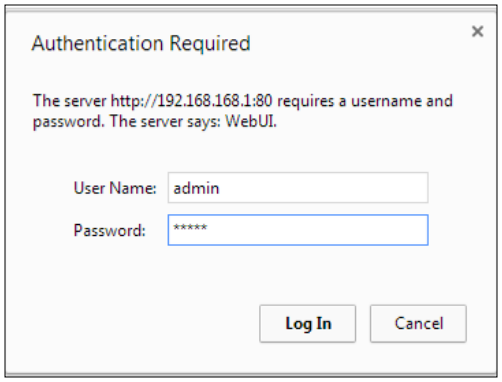
2.0 Quick Start

✓ The pDDL will then ask for a Username and Password. Enter the factory defaults listed below.

The factory default login:

User name: admin
Subnet: admin

You will be forced to change the default password upon logging in for the first time.

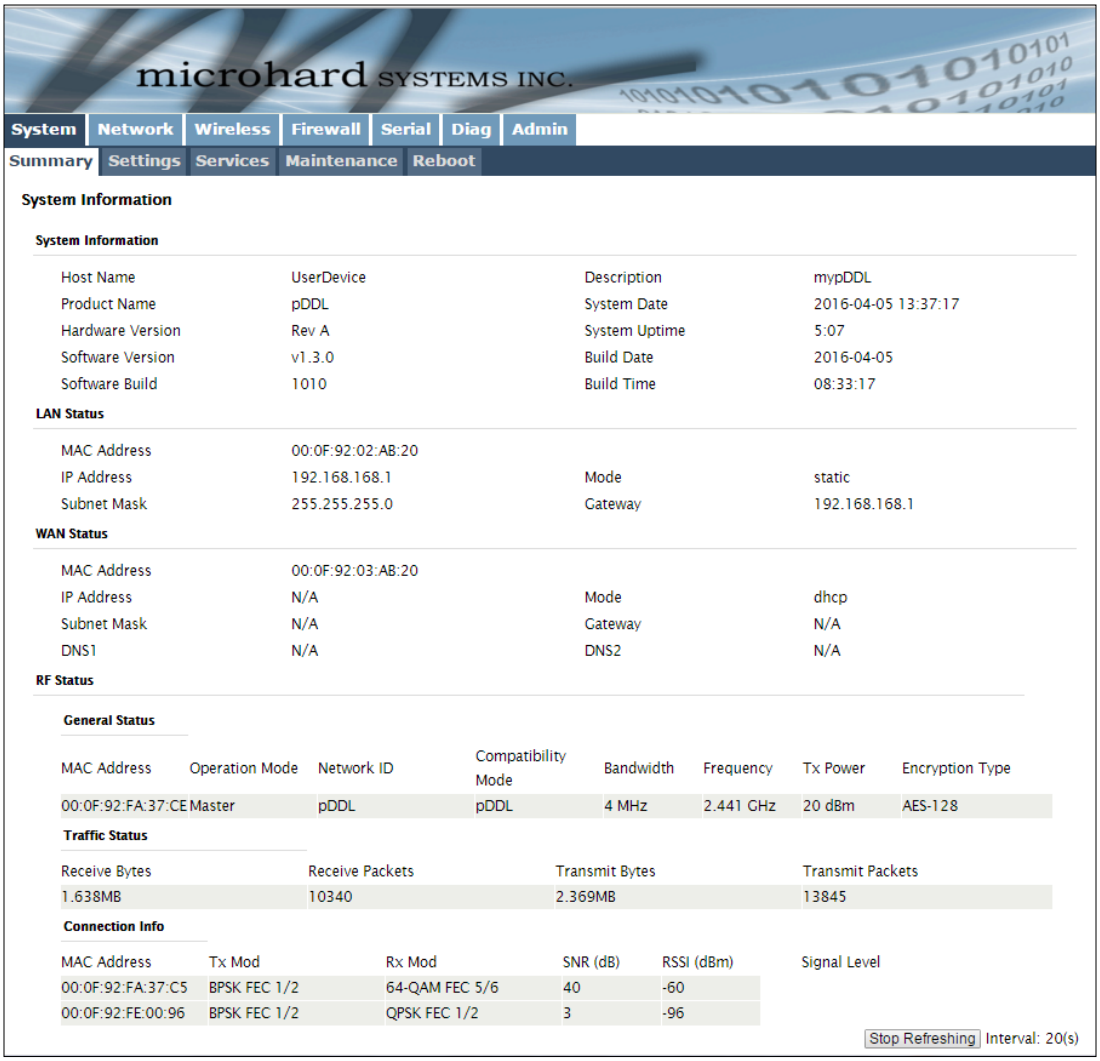


The Factory default login:

User name: **admin**
Password: **admin**

Once successfully logged in for the first time, the pDDL will force a password change

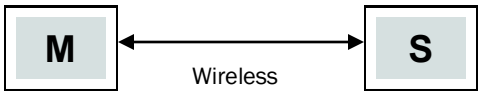
✓ Once successfully logged in, the System Summary window will be displayed.



2.0 Quick Start

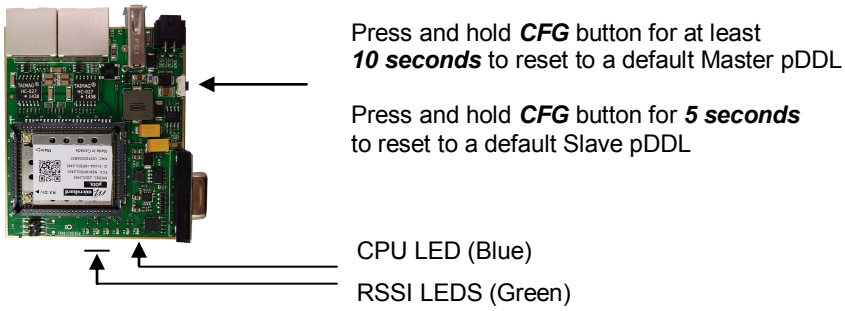
2.2 Simple Master and Slave - Auto (Using Defaults)

This **Quick Start** example requires (2) pDDL units, one will be configured as a Master (M), the second unit will be configured as a Slave/Remote (S). This example will use factory defaults to set up each unit so that a simple network will be established.



✓ Use ***Section 2.1*** *Getting Started* to power up a pair of pDDL modules mounted in a Pico Ethernet Motherboard.

✓ Master: Once the pDDL is fully booted (solid blue CPU LED), press and hold the CFG button. Once the CPU LED begins to flash, continue to hold for at least **10 seconds**, then release.



✓ The pDDL will then reset all settings to default values, and set the following settings that are required to automatically create a link with a slave:

- IP Address: **192.168.168.1**, Operating Mode: **Master**
- Network ID: **pDDL**, Channel Bandwidth: **8 MHz**
- Channel-Frequency: **76 - 2477 MHz**

✓ Slave: Ensure the pDDL is fully booted (solid blue CPU LED), then press and hold the CFG button. Once the CPU LED begins to flash, continue to hold for **5 seconds**, then release.

✓ The pDDL will then reset all settings to default values, and set the following settings that are required to automatically create a link with a slave:

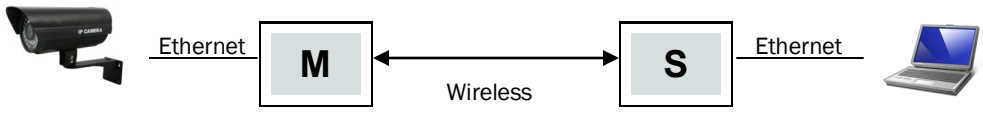
- IP Address: **192.168.168.2**, Operating Mode: **Slave**
- Network ID: **pDDL**, Channel Bandwidth: **8 MHz**
- Channel-Frequency: **76 - 2477 MHz**

✓ Once both units have finished changing settings (~60 seconds) a wireless link should automatically be established between them, this can be seen by observing the RSSI LEDS, they should be on solid, indicating a link (the more LEDs illuminated = stronger the link).

2.0 Quick Start

2.3 Simple Master and Slave — Manual Setup

This **Quick Start** example requires (2) pDDL units, one will be configured as a Master (M), the second unit will be configured as a Slave/Remote (S). This example will show the basic steps required to set up each unit so that a simple network will be established.



For the best performance it is required to connect the Master to the video source (camera) and the remote to the video receiver. The pDDL can support Point-to-Multipoint applications and multiple remotes could be used to view the video from multiple locations.

2.3.1 Configuring the Master

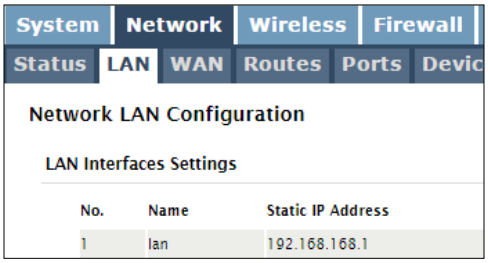
✓ Use ***Section 2.1 Getting Started*** to connect, power up and log in to a pDDL unit.

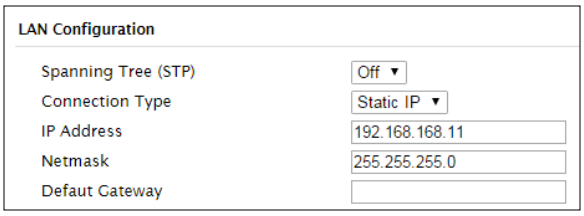
✓ Give the pDDL unit a unique IP address.

To connect to an existing network, contact your Network Administrator for valid network settings.

Select ***Network*** from the top/main navigation.

Select ***LAN*** from the submenu list. Select Edit on the LAN interface 1.





Choose *Static IP* for the ***Connection Type***.

Enter the following Network Information:

IP Address: 192.168.168.11
IP Subnet Mask: 255.255.255.0

Click on the **Submit** button to write the changes to the pDDL. The **Cancel** button will revert back to last values saved to the unit.

Once the IP Address is changed, you will need to type the new address into your browser to continue the configuration.

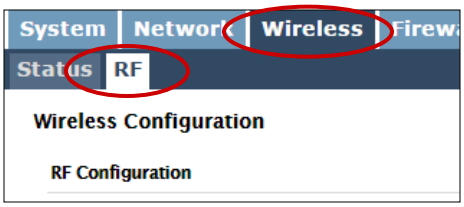
Refer to **Section 5.2.2** *LAN* for additional information.

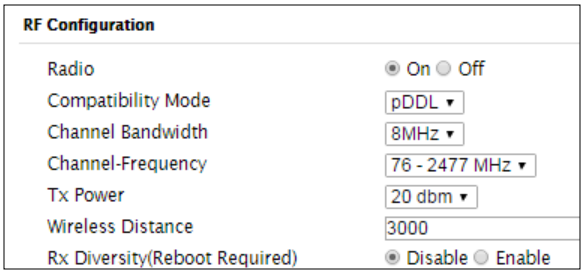
2.0 Quick Start

2.3.1 Configuring the Master (Con't)

✓ Configure the pDDL as a Master

Select ***Wireless*** from the top/main navigation, and then *RF* from the submenu list.





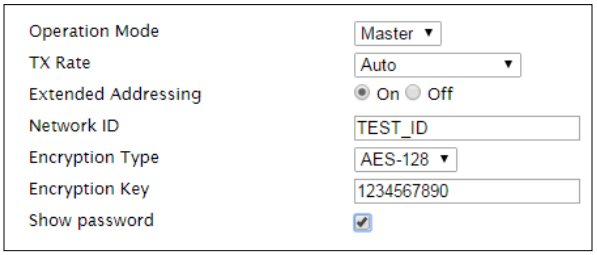
In the RF Configuration ensure the ***Compatibility Mode***, ***Channel Bandwidth*** and ***Channel-Frequency*** are set the same on each module.

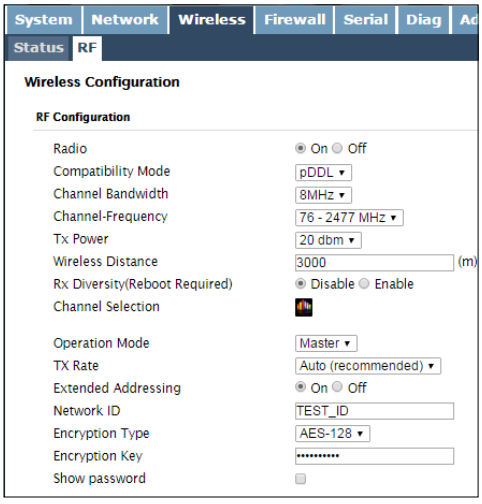
If a Antenna is not physically connected to the Rx Diversity connector, ensure it is disabled in this menu.

For bench or close proximity testing it is best to use a lower power setting to prevent RF saturation. Select 20dBm from the ***TX Power*** setting.

Select Master from the **Operation Mode** dropdown box.

Set a **Network ID**, which will need to be the same on each unit in the network. This example uses **TEST_ID.**





The remaining settings in the ***Wireless*** menu should be left as defaults for this exercise.

Refer to **Section 5.3** *Wireless* for additional information.

Click on the **Submit** button to write the changes to the pDDL. The **Cancel** button will revert back to previously saved values

If any additional settings need to be changed, ensure they are also changed on the Slave.

2.0 Quick Start

2.3.2 Configuring the Slave/Remote

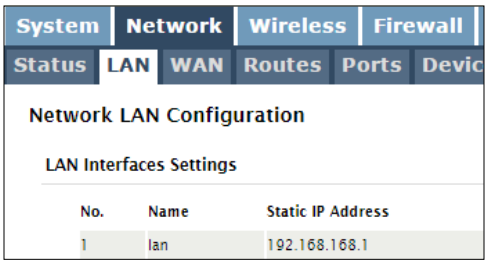
The following procedure describes the steps required to set up a pDDL unit as a Slave (S). A Slave provides a single wireless connection (i.e to an Master) and provides a wired connection to a PC or other devices.

✓ Use ***Section 2.1*** *Getting Started* to connect, power up and log in to a second pDDL unit.

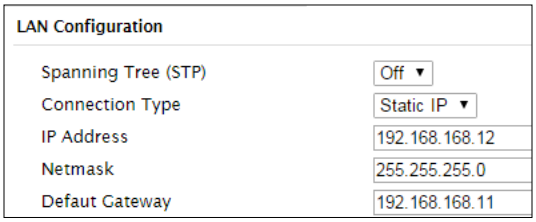
✓ Give the pDDL unit an unique IP address.

Select ***Network*** from the top/main navigation.

Select ***LAN*** from the submenu list. Select Edit on the LAN interface 1.



To connect to an existing network, contact your Network Administrator for valid network settings.



Choose *Static IP* for the ***Connection Type***.

Enter the following Network Information:

IP Address: 192.168.168.12
IP Subnet Mask: 255.255.255.0
Default Gateway: 192.168.168.11

Click on the **Submit** button to write the changes to the pDDL. The **Cancel** button will revert back to last values saved to the unit.

Once the IP Address is changed, you will need to type the new address into your browser to continue the configuration.

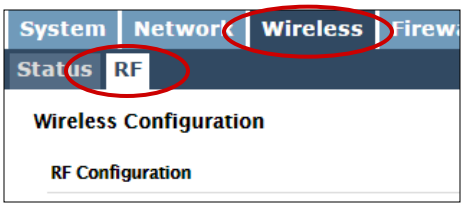
Refer to **Section 5.2.2** *LAN* for additional information.

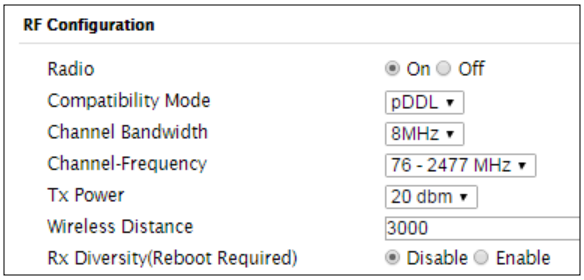
2.0 Quick Start

2.3.3 Configuring the Slave/Remote (Con't)

✓ Configure the pDDL as a Master

Select ***Wireless*** from the top/main navigation, and then *RF* from the submenu list.





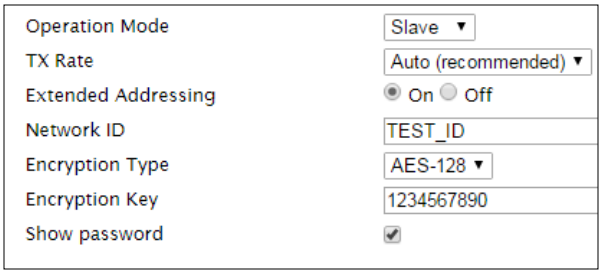
In the RF Configuration ensure the ***Compatibility Mode***, ***Channel Bandwidth*** and ***Channel-Frequency*** are set the same on each module.

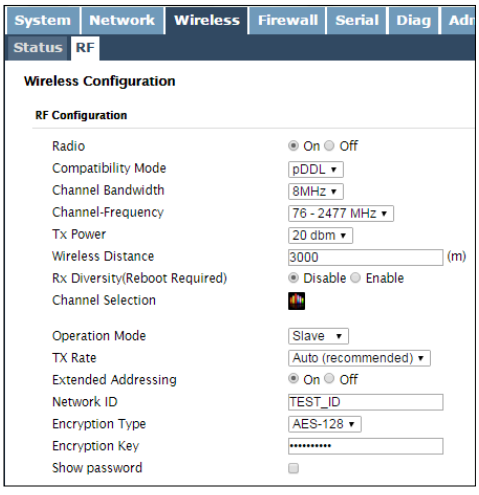
If a Antenna is not physically connected to the Rx Diversity connector, ensure it is disabled in this menu.

For bench or close proximity testing it is best to use a lower power setting to prevent RF saturation. Select 20dBm from the ***TX Power*** setting.

Select Master from the ***Operating Mode*** dropdown box.

Set a **Network ID**, which will need to be the same on each unit in the network. This example uses **TEST_ID.**





If any additional settings need to be changed, ensure they are also changed on the Slave.

The remaining settings in the ***Wireless*** menu should be left as defaults for this exercise.

Refer to **Section 5.3** *Wireless* for additional information.

Click on the **Submit** button to write the changes to the pDDL. The **Cancel** button will revert back to previously saved values

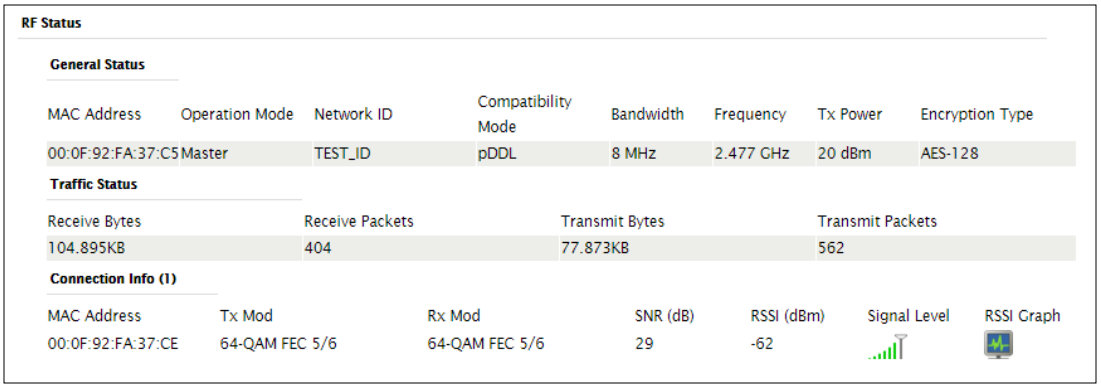
2.0 Quick Start

2.3.3 Testing the Connection

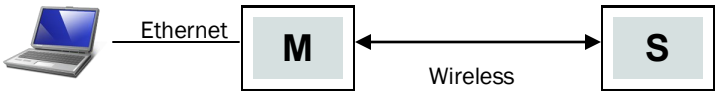
✓ Visually check to see if the pDDL units are communicating.

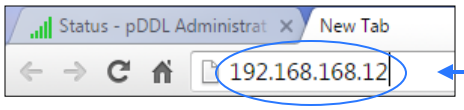
The ***RSSI*** LED's represent signal strength, the more LED's that are illuminated, the stronger the signal. The ***Wireless > Status*** window also has a Connection Status section similar to that seen below:

RSSI LED's that are 'cycling' or 'scanning' indicate that the unit is searching for a signal.



✓ With a PC connected to the Master (M), type in the IP address of the Slave (S) into the URL address bar of your browser. You should be able to connect, log in and view the WebUI of the Slave via the wireless connection.





Open a browser and type in the address of the slave: ***192.168.168.12***

Log into the unit.

The System Summary screen should be displayed

If any additional settings need to be changed, ensure they are also changed on all radios.