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Building Intelligent Supply Chains

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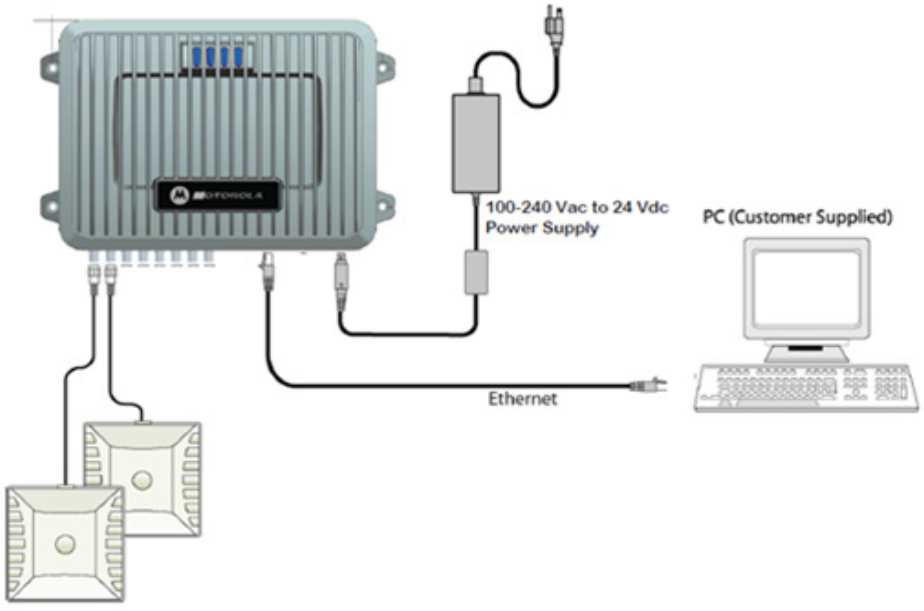
# Omni-ID Power 50 Battery Assisted Passive (BAP) Tag

This Application note provides details on how to set up and operate the Motorola FX9500 reader using the web interface to test the extended read distance offered by the Omni-ID **Power 50** BAP Tag.

## Reader System Setup Requirements

1) Use two or more anennas.
2) Configure the antenna ports to Bi-static operation.
3) Set the Backscatter Link Frequency to 240KHz.
4) Set the Protocal Tari length to 25uS.
5) Use session mode 1.
6) Set Q allocation to 0.

## System Configuration Requirements




Recommended Antenna: MTI MT242025 7.5 dBiC Antenna

Mount each Antenna, minimum 1.0m above ground and separated 40cm apart

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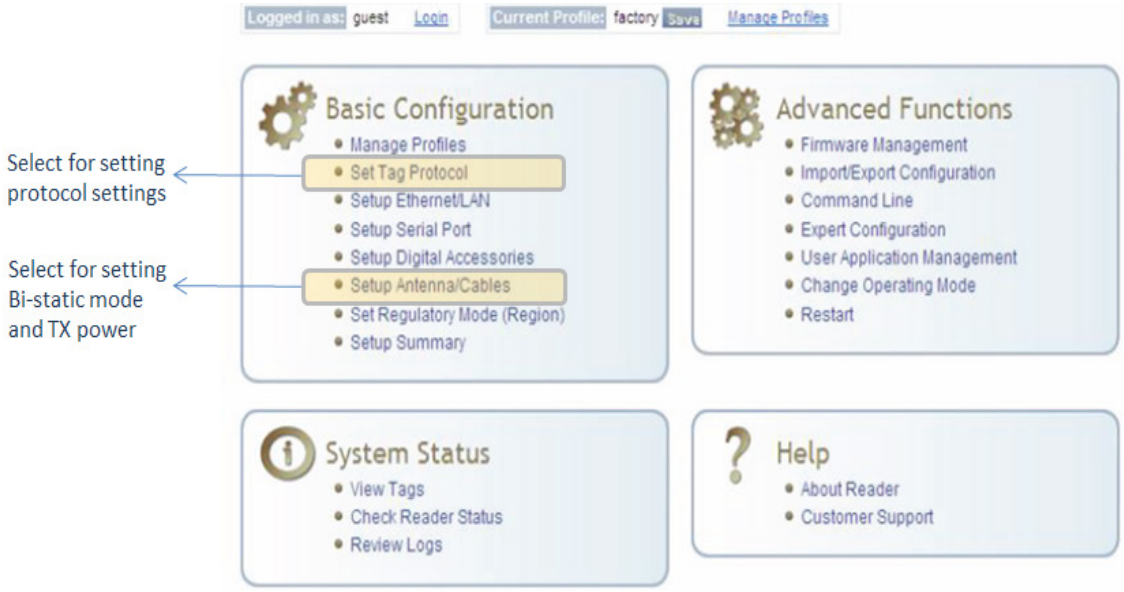
## RFID Reader Operation with Web Console

The FX9500 can be operated by logging directly into the RFID Reader's embedded Web Console. To acess a particular RFID Reader, perform the following:

1. Enter the RFID Reader's IP Address into your web browser (Default: 169.254.1.1)or press the **Configure** button.
2. The RFID Reader's Web Console interface is displayed.




3. Log into the RFID Reader. Press **Login** for the login screen.


4. The default login is **guest.** If you need administrator privileges, login as **admin** & enter **change** as the password.
5. Press **submit**.
6. Select **Basic Configuration**, then **Setup Antenna/Cables** to configure the antennas, gain, and power settings.
7. Select **Advanced Functions,** then **Change Operating Mode** to verify the RFID Reader is in the proper mode.
8. Select **Basic Configuration**, then **Set Tag Protocol** to verify the RFID Reader is configured for the proper tag protocol.

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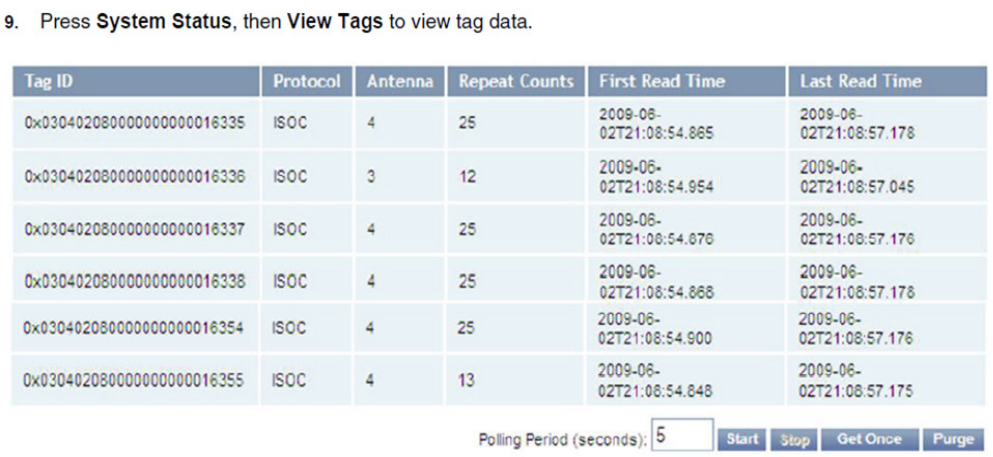
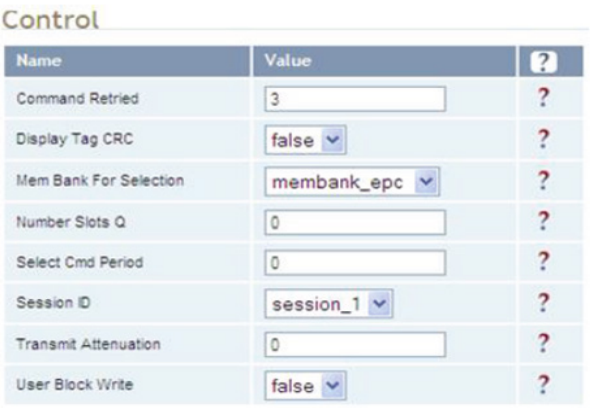
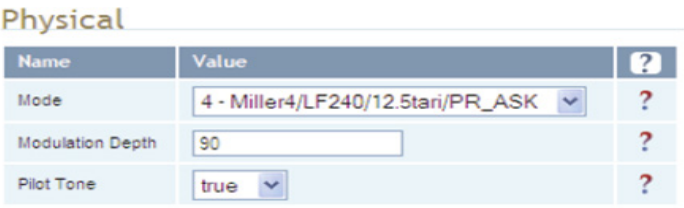
9. Press **System Status**, then **View Tags** to view tag data.




10. If you need to configure our RFID Reader, See **Chapter 4, Embedded Web Console** for information on using the Web Console to adjust configuration variables and parameters.

## Setting Reader Protocol settings IN Set Tag Protocol, menu options




- Command retried : 3
- Display Tag CRC : False
- Mem Bank fo selection : membank_epc
- Number Slots Q : 0
- Session ID : session_1
- Transmit Attenuation : 0
- User Block Write : False

- Mode : 17- Miller8/LF240/25.0tari/PR_ASK
- Modulation depth : 100
- Pilot Tone : True

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## Setting Reader Antenna Ports in - Setup Antenna/Cables menu

Setup Antenna 1 port & Antenna 2 port TX power levels according to Antenna and Cable loss used.

ONE OF THESE MENU OPTIONS ALLOWS THE Antennas to be set to B-static mode. THIS detail needs to be added.