Mobile Wireless System
MWS100
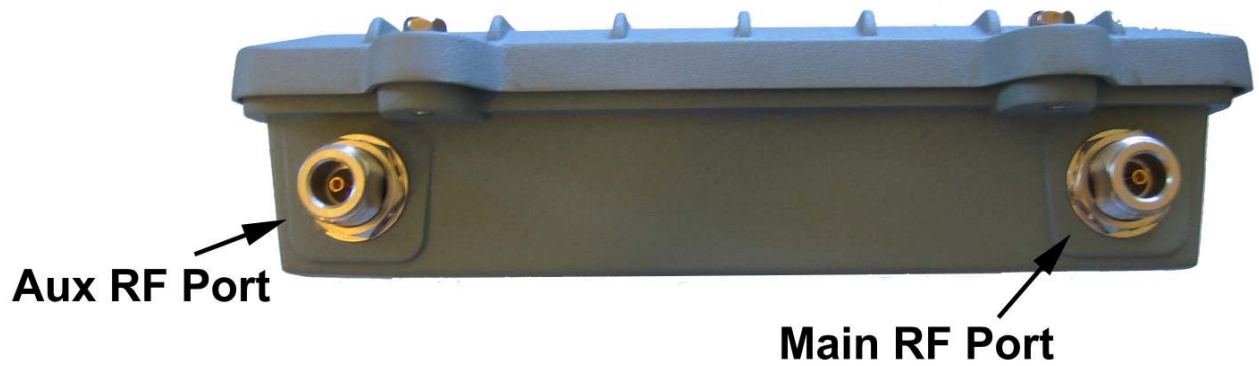## Installation Guide

1 Package Contents

1. MWS100 Mobile Wireless System

2. Fused Power Cable (3A Slo-Blo fuse included)

3. MWS100 Installation Guide (this document)

Other accessories may be provided by your supplier or system integrator. To complete the installation of the MWS100, the following items will be required:

1. Antenna(s).   The MWS100 contains two 802.11 (Wi-Fi) radios. The first radio operates in the 2.4 GHz band. The second radio operates in the 5 GHz band. Specific frequencies used are country / model dependent. One antenna is required for each band you will be operating on.

2. Antenna Cable(s). A suitable length of antenna cable is required for each antenna. Type LMR-200 cable is recommended with R-SMA connectors for attachment to the MWS100.

3. Mounting Hardware. Suitable mounting hardware must be provided depending upon specific installation requirements.

2 Front Panel Connectors

Aux RF Port

Main RF Port

3 Rear Panel Connectors

DC Power

Ethernet and PoE (in)
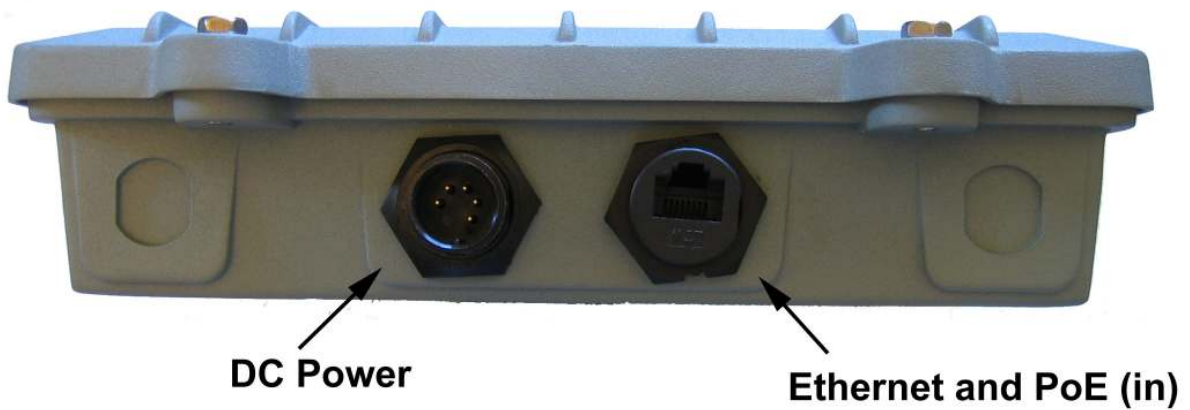
4 Installation

Note: The MWS100 must be installed by a trained professional installer only. Failure to comply fully with these instructions may void the MWS100 warranty and/or violate local safety or radio regulations.

1. Select a mounting location for the MWS100. The MWS100 is designed for indoor, outdoor and in-vehicle applications.

    Note: In the U.S. the 5150-5250MHz band is only available for indoor applications.   It is the responsibility of the installer to configure the MWS100 to use of this band only when it is installed indoor.

2. Select antennas with gain specifications according to the table below.

    Note: The maximum allowable power for each antenna type is noted in the last column.   The installer must set the power correctly for the chosen antennas.

Frequency	Antenna Type	Connection Method	Maximum Gain	Maximum Power Setting
2412-2462MHz 5150-5250MHz 5745-5850MHz	Linear Polarized Dome	LMR200 Cable (> 3 ft. length)	4 dBi	Full
2412-2462MHz 5150-5250MHz 5745-5850MHz	Omni-directional	Direct connection to MWS100	3 dBi 5 dBi 5 dBi	Full
2412-2462MHz	Omni-directional	LMR200 Cable (> 3 ft. length)	8 dBi	Full
5745-5850MHz	Omni-directional	LMR200 Cable (> 3 ft. length)	12 dBi	-3dB (23dBm)
4940-4990MHz	Omni-directional	LMR200 Cable (> 3 ft. length)	11 dBi	Full

3. Mount the selected antennas securely following all antenna manufacturer instructions and recommendations. Provide a suitable length of LMR-200 type antenna cable between each antenna and the MWS100. If using only one antenna, connect it to the port labeled "MAIN". Connect a second antenna to the port labeled "AUX".

    RF Exposure Requirements
    To ensure compliance with FCC RF exposure requirements, the antenna used for this wireless network device must be installed to provide a separation distance of a minimum of 40cm or more from all persons, and must not be co-located or operated in conjunction with any other antenna or radio transmitter. Installers and end-users must follow these installation instructions.

4. Using the supplied fused power cable, connect the BLACK wire to the system ground and then attach the RED wire to the positive DC supply. The MWS100 is designed to operate from a minimum of 11 VDC* to a maximum of 52 VDC and a maximum current draw of 2 A.

   * A low-voltage cut-off circuit prevents the MWS100 from draining the vehicle battery. The unit will automatically power down when the DC voltage falls below 10.5 VDC. Operation will be restored once the DC voltage rises above 11.5 VDC.

   The MWS100 may also be powered over its Ethernet port (LAN) by a PoE power injector capable of sourcing 16 W.

5. Provide an Ethernet cable for connecting the MWS100 to a computer or router.

6. Attach the supplied fused power cable to the PWR connector on the EWS100 rear panel.

5   Configuration and Troubleshooting

If the MWS100 was provided by the Systems Integrator or WISP responsible for operation of the Strix OWS network, then it will have been pre-configured for correct operation on the wireless network (SSID, security, and other configuration settings). Otherwise, contact the WISP for these settings and configuration assistance.

If access to the troubleshooting feature has been made available, then a convenient means to verify settings and network connection exists. On the Web interface, click on the *Monitor* tab then click on *Troubleshooting* to display the Troubleshooting window. Click on the *Start Troubleshooting* button to begin the process.

> This wireless network device 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 wireless network device generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. For technical support, consult your Service Provider.