

INSTALLATION INSTRUCTION MANUAL

external antenna

Several ADURA™ devices have two antenna options to allow for a robust RF connection. For each ADURA product, the primary antenna is internal to the enclosure and is used by default. If the installation environment results in a poor RF link quality for the default antenna, a second external antenna can be used to improve RF link performance. For this option, the separate external antenna can be connected to the provided MMCX antenna jack on the ADURA device.

Only ADURA-provided or authorized external antennas may be used with ADURA products. All antennas must be installed by trained professionals.

The antenna type must be one of the following:

- 1/2 wave whip antenna with a maximum gain of +2dBi
- 1/4 wave dome antenna with a maximum gain of +0dBi

Installation Instructions:

1. Remove power to the device(s).
2. Connect the external antenna to the MMCX antenna jack on the device(s).
3. ADURA-provided antennas have a 3' cable to allow mounting of the antenna element outside of the light fixture or other enclosure. Some ADURA antenna models will mount directly in the 1/2" knockout hole for convenience.
4. Once the antenna is securely mounted, power on the connected device(s).
5. Using the ADURA commissioning tools, configure the appropriate device(s) to use the additional external antenna. See commissioning documentation for more information.

CAUTION

- Disconnect power before installation or service.
- All installation and maintenance work must be performed by qualified personnel.
- The antenna must be installed in accordance with state, local and national electrical codes and requirements.

Diagram #1 - Light Controller

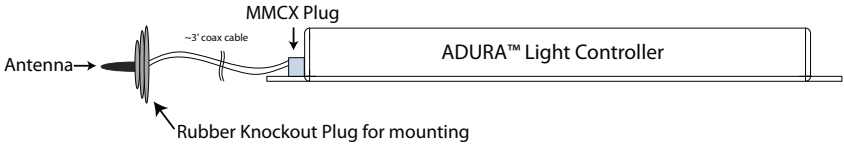
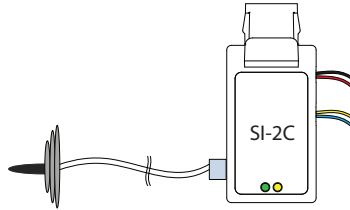


Diagram #2 - Sensor Interface



Specifications:

Radio Frequency:	2405 MHz - 2480 MHz
Antenna Type:	1/2 wave whip antenna with a maximum gain of +2dBi 1/2 wave dome antenna with a maximum gain of +0dBi
Connector Type:	MMCX plug (antenna) MMCX jack (ADURA device)

Ordering Information:

Catalog Number	Description
XA	Optional external antenna

To comply with RF exposure compliance requirements, for mobile configurations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Class A Digital Devices

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

WARRANTY INFORMATION

Adura Technologies™ warrants its products to be free of defects for a period of five years. Adura Technologies will, at its option, repair or replace any product that is defective in materials or manufacture that is returned to ADURA within the warranty period. This warranty is void if this product has been installed improperly or in an improper environment, overloaded, misused, or altered in any manner, or not installed in accordance with any labels or instructions. Adura Technologies is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of property, revenue or profit. This warranty does not cover the cost of installation, removal or reinstallation.