Qadvanced Intelligent System (QIS) Application Guide
**Qadvanced Intelligent System (QIS)**

**System Overview**

- **Power Supply:** 24 VDC, 7.5A
- **RJ-45 Ports for Motorized Shades and Switches** - Quantity 8
- **Communication Ports (RJ-45)** - Quantity 2
The Qadvanced Intelligent System offers three methods for Shade Control:

**Hardwire control:**
Uses standard Cat5e or Cat6 cable for both power and communication. Controlled via hardwired wall switches.

**ZigBee HA1.2:**
Uses standard Cat5e or Cat6 cable for power. Wireless communication via ZigBee HA1.2 specification. Supports stand alone applications or ZigBee HA1.2 network applications that are easily integrated with 3rd party control systems.

**RS485 Communication:**
Uses standard Cat5e or Cat6 cable for both power and communication. 3rd party integration via RS485 Protocol.

Cat5e or Cat6 cables are not provided and must be purchased separately. Shielded wire may be used, but is not required. For installations where the QIS cables may be in close proximity to other wiring, it may be advisable to use shielded cables to protect against possible interference.

**Caution**

**NOTE:** The Qadvanced Intelligent System does not operate on “standard” Power over Ethernet (PoE) schemes. Do not attempt to connect the Qadvanced Intelligent System to any PoE device. Doing so may damage the system components and/or the external Ethernet or PoE device.

*Specifications are subject to change without notice*
Wire Specification:
- Category 5e/Category 6 for use with RJ-45 Connector
- 24 AWG
- Maximum length of wire from Power/Communication Panel to device:
  - Up to an 8’ X 8’ Shade with 40:1 motor - 1250 feet
  - 8’ X 8’ to 12’ X 12’ Shade with 73:1 motor - 750’ feet
  - Hardwired 4 and 8 Button Switches - 1000’ feet from switch to farthest power panel
  *Length based on 115K baud rate
- Maximum wire length for RS485 communication - 2000’ feet from source to shade

System Capacity:
- 200 Devices (QMotion Shades, QMotion Hardwired Switches)

Power/Communication Panel:
- 8 RJ-45 ports for motorized shades and switches
- 2 additional RJ-45 communication ports dedicated to daisy chain with other Power/Communication Panels and Third Party Integration via RS485.
- Power Supply
  - AC Input: 100-240 VAC, 2.5A
  - DC Output: 24 VDC, 7.5A

Note:
- Standard Roll Applications (Motor Left) - Wire will need to be run to the LEFT side of the window (as shown).
- Reverse Roll Applications (Motor Right) - Wire will need to be run to the RIGHT side of the window.

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System Capacity:

- 60 Devices (QIS Shades, Qmotion Wireless Remotes, Qubes, and Range Extenders)
- Router capacity: 32 devices

Maximum Range: QIS ZigBee network devices have a 50 feet radius range. A network of devices can be connected to create cumulative ranges that can span over hundreds of feet.

*Environmental conditions may affect individual results. All range dimensions are based on an unobstructed environment or free range. There are a multitude of factors that can not be controlled by our product that interfere with the range. Actual use in a home, office, or other space can expect lower range, which can be augmented through the proper use of a Range Extender device.

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Qadvanced Intelligent System (QIS)
Third Party Integration with Hardwired Switch and ZigBee HA1.2

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**FCC**

Warning: Changes or modifications to this device not expressly approved by QMotion® Incorporated - Advanced Shading Systems could void the user’s authority to operate the equipment.

NOTE: 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 or more 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.

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.

**RF Exposure**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**INDUSTRY CANADA**

This device complies with Industry Canada licence-exempt RSS standard(s). 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.

**RF Exposure**

Cet équipement est conforme aux limites d'exposition aux radiations dans un environnement noncontrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec tout autre antenne ou transmetteur.