A&E Specification

AWRR44 Long Range Reader

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Notes to Security System Specifiers - This A&E specification is written according to Construction Specifications Institute (CSI) 3-Part Format, based on MasterFormat™ (2016 Edition) and The Project Resource Manual – CSI Manual of Practice. CSI MasterFormat 2016 incorporates numerous significant changes affecting electronic safety and security. This document is written to provide flexibility in using either format, although adoption of MasterFormat 2016 is encouraged. All trademarks are properties of their respective owners.

Part 1 General

1.1. Summary of Requirements

A. AWRR44 Long Range Reader

1. The AWRR44 Long Range Reader allows selective restriction to a place or resource such as a property, building or room to authorized persons with valid credentials.

1.2. References

A. Abbreviations

2.	GUI	Graphical User Interface
3.	HTTP	Hypertext Transfer Protocol
4.	HTTPS	Secure HTTP
5.	IP	Internet Protocol
6.	PoE	Power over Ethernet
7.	PPPoE	Point-to-Point Protocol over Ethernet
8.	QoS	Quality of Service
9.	TCP	Transmission Control Protocol
10.	ESD	Electrostatic discharge
11.	HDD	Hard Disk Drive
12.	LAN	Local Area Network
13.	WAN	Wide Area Network
14.	ACS	Access Control System

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15. ACU Access Control Unit
16. AES Advanced Encryption Standard
17. LAN Local Area Network
18. LED Light-Emitting Diode
19. REX Request to Exit
20. SSO Single Sign-On
21. TLS Transport Layer Security
22. 1FA Single Factor Authentication
23. 2FA Two Factor Authentication

1.3. Certifications, Standards and Ratings

A. Reference Standards

1. Networking
    a. IEEE – 802.3 Ethernet Standards

1.4. Submittals

A. Product Data

1. Provide manufacturer's datasheets in printed or electronic form.
2. Provide manufacturer's Installation and operating manuals/guides.
3. Provide manufacturer's warranty statement.

1.5. Qualifications

A. Manufacturer

1. Company specializing in manufacturing products at least ten years experience.

B. Supplier

1. Authorized distributor of specified manufacturer with at least 5 years.

C. Installer

1. Authorized installer of specified manufacturer with a least 5 years experience.

1.6. Delivery, Storage and Handling

A. Delivery

1. Deliver materials in original, unopened and undamaged packaging in accordance with manufacturer's instructions.

D. Storage

1. Store and guard materials from environmental and temperature conditions in accordance with manufacturer's instructions.

E. Handling

1. Handle and operate products and systems in accordance with manufacturer's instructions.

1.7. Warranty

A. Warranty Period

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1. Manufacturer shall warranty access control device for a period of 1 year for the repair or replacement of defective equipment.

1.8. Certifications

B. Certification Types

1. UL Listed - 294
2. IP65
3. FCC
4. ICC
5. CE

1.9. Tech Support

A. Support

1. Technical support shall be based in North America.
2. Technical support support shall be via email or toll-free phone number.
3. Technical support shall be available weekdays from 6 a.m. to 6 p.m. EST.

Part 2 Product

2.1. Manufacturer

A. Manufacturer

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F. Product

1. Access Control Device
2. Models:
   a. AWRR44: Long Range Reader

G. Product Description

1. The AWRR44 Long Range Reader allows selective restriction to a place or resource such as a property, building or room to authorized persons with valid credentials.

2.2. Product Description

A. General

1. All equipment and materials used shall be standard components, regularly manufactured, regularly utilized in the manufacturer's system.
2. All systems and components shall have been thoroughly tested and proven in actual use.

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3. All systems and components shall be provided with the availability of a toll free technical support phone number from the manufacturer. The phone number shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge.
4. All systems and components shall be provided with an explicit manufacturer warranty.

B. Description

1. Access control device shall meet the requirements of business, government and general security surveillance applications.
2. Access control device shall function as part of an automate access control system using credentials, credential readers, electric door locks and other devices.
3. Access control device shall meet acceptable read range of specified card and tag credentials.
4. The administrative user shall determine who is allowed to enter or exit, where they are allowed to exit or enter, and when they are allowed to enter or exit.
5. When access is granted, the door shall be unlocked for a predetermined time and transaction shall be recorded.
6. When access is denied, the door shall remain locked and the attempted access shall be recorded.
7. Access control device shall be powered by an external power source.
8. Access control device shall have an integrated receive antenna to allow high frequency, long-range identification solutions.
9. Access control device shall be off-white in color.
10. Access control device shall integrate an RFID card reader into a single, integrated device.
11. Access control device shall be a four-channel receiver (Channels A, B, C & D) which allows transmitter data to be sent over four separate Wiegand outputs.
12. Access control device shall be capable of indoors or outdoors applications.
13. Access control device shall be appropriate for use in applications requiring RFID card reader-only.
14. Upon each credential read, the reader shall respond with a beep of its audio tone and a flash of its LED.
15. Access control device shall be tamper resistant.
16. Access control device shall be electronically sealed in weather and tamper resistant epoxy potting.
17. Access control device shall support contactless Digital Radio Frequency Identification (RFID) technology.
18. Access control device shall be compliant with the Wiegand communication protocol.
19. Access control device shall support transmission with rolling code + encryption.

C. Electrical Specification

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1. Power Input 12VDC
2. Power Supply Not Supplied
3. Consumption 120mA typical @ 12VDC

D. Environmental Specification

1. Operating Temperatures -40°F to 149°F (-40°C to 65°C)
2. Dimension 3.4”W x 6.3”H x 2.3”D (86.4mm x 160mm x 58.4mm)
3. Weight 12oz (340g)

E. Mechanical Specification

1. System
    a. Technology: Long Range
    b. Frequency: 433MHz
    c. Transmitters Supported WRT-2+ (all variants), WRT-4+ (all variants)
    d. Read Range: Up to 200ft (61m)
    e. Mounting: USA/European wall box or any flat surface
    f. Cabling: 24 AWG minimum, multi conductor stranded with foil shield
    g. Interface: Wiegand (26 bit industry standard and custom Wiegand formats)
    h. Audio: Beeper
    i. LED: Four-state standard (red, green, amber, and off) Power (blue), Channel (green)

Part 3 Execution

3.1 Examination

A. Device shall be inspected for physical and cosmetic defects.
B. Package box shall include device, power supply (if applicable), installation and user guides on disk.

3.2 Preparation

A. ESD-sensitive parts shall be properly protected against static buildup through the use of static shielding material.
B. Package box shall contain adequate padding to prevent damage to device and parts during shipping.

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3.3 Installation

A. Device shall be installed in accordance with the manufacturers' installation guide provided.
B. Device shall be installed by qualified service professionals.
C. Device shall be installed in accordance with the National Electric Code or applicable local codes.
D. Device shall be installed in locations which adequately supports the device's environmental and electrical requirements.

3.4 Field Quality Control

A. Test for proper communication between device and supporting devices.
B. Test for proper operation of device's system software and related software programs.
C. Determine and report all problems to the manufacturers' customer service representatives.

3.5 Adjusting

A. Make all necessary adjustments to the device and supporting devices to ensure the proper operation of the device.
B. Make all necessary adjustments to the devices to satisfy end-user requirements.

3.6 Demonstration and Training

A. Perform final inspection to validate and ensure proper functioning of device.