SYSTEM PERFORMANCE SPECIFICATION
FOR DMP DUALCOMNF SERIES UNIVERSAL FIRE ALARM COMMUNICATOR

1.0 GENERAL

1.1 Manufacturer

A. The manufacturer shall have at least thirty (30) years of experience in the role of fire and security control manufacturing and a proven track record of forward and backward compatibility for a minimum of twenty (20) years for its product's auxiliary devices, including system keypads, annunciation devices, zone expansion modules, and addressable detection devices.

B. The manufacturer must also manufacture receiving equipment that is compatible with standard dial-up telephone lines and network monitoring equipment that is compatible with a LAN, WAN, Internet, and LTE Cellular Communications. The receiving equipment shall be capable of receiving all status and alarm messages generated by the communicator. The receiving equipment shall be capable of updating the communicator operating program and the system date and time.

C. Universal Fire Alarm Communicator equipment manufacturer shall be:

Digital Monitoring Products, Inc. (DMP)

2500 N. Partnership Boulevard, Springfield, MO 65803

Telephone (417) 831-9362 FAX (417) 831-1325

1.2 Installer

A. The installing company shall show proof of having regular experience with design, installation, service, and maintenance of manufactured systems for a minimum of the last twelve (12) calendar months from the project start date. Each system installer and service person must provide manufacturer certification of technical training for installation, service, and system maintenance. Certification shall be proven with an official document issued by the manufacturer.

B. The installing company shall provide a minimum of 8 (eight) verifiable references from its clients where the manufacturer's system has been installed within the last twelve (12) calendar months from the project start date.

C. The installing company shall furnish and install a complete electrically supervised DualComNF Series Communicator, as detailed in this specification. The system shall be inclusive of all necessary function, monitoring, and control capability as detailed herein and on accompanying shop drawings.

E. The installing company shall become familiar with all details of the work, verify all dimensions in the field, and shall advise the Architect of any discrepancy before performing the work. Materials shall be installed in strict compliance with local building codes. All work shall be performed in accordance with Digital Monitoring Products, Inc. instructions. Associated components must be installed and serviced by a dealer in good standing that is factory-trained by Digital Monitoring Products.

1.3 Central Reporting Station

A. The actual alarm signal receipt and processing is a significant portion of the scope of work. Third party and/ or contract stations are permitted. The monitoring station must be certificated for Protective Signaling Services or Central Reporting Station Signaling Services. A copy of the station certificate shall be attached as part of this bid package.

C. The contractor must have a valid Alarm Operator License. A copy of licenses shall be attached as part of this bid package.

D. The contractor may be required to monitor a portion of the communicator by way of the end user data network.

E. The Contractor shall become familiar with all work details, verify all dimensions in the field, and shall advise the Architect of any discrepancy before performing the work.

F. The end user shall not incur any central station setup charges by the contractor to receive alarm signals by way of the end user data network.

2.0 SCOPE

2.1 Requirements

A. Furnish and install a complete Universal Fire Alarm Communicator that provides a fully supervised alarm communication path for commercial fire control panels with the performance criteria detailed in this specification. The system shall be inclusive of all necessary functions, monitoring, and control capability as detailed herein and on accompanying Shop drawings.

B. This specification document provides the requirements for the installation, programming, and configuration of a complete Fire Alarm Communicator. This system shall include, but not be limited to:

- Universal Fire Alarm Communicator
- Integrated Network Communication
- Integrated Cellular Communication
- Fire Communicator Enclosure
- Power supply
- Batteries
- Wiring
- Conduit
- Associated peripheral devices
- Other relevant components and accessories required to furnish and install a complete and operational Universal Fire Alarm Communicator.

2.2 Standards

The system shall be listed as a Power Limited Device and be listed and comply with the Listings and Standards in the table. Each system shall be supplied with complete details on all installation criteria necessary to meet all the listings and standards.

Fire Listings	Related Standards
ANSI/UL 864 Fire Protective Signaling System	NFPA 70 National Electric Code (NEC)
California State Fire Marshal	NFPA 72 Fire Alarm and Signaling Code
FDNY – Fire Department New York City	

3.0 SUBMITTALS

3.1 General Requirements

The contractor shall submit three (3) complete sets of documentation within thirty (30) calendar days after contract award date. Indicated in the document shall be the manufacturers' names, catalog number, type, size, style, rating, and catalog data sheets for all items proposed to meet these specifications.

3.2 Shop Drawings

Shop drawings shall be submitted in accordance with Section 3.0 Submittals and shall consist of a complete list of equipment and materials, including manufacturer's descriptive and technical literature, performance charts and curves, catalog cuts, and installation instructions.

3.3 As-Built Drawings

The contractor shall provide a complete set of as-built drawings for the entire system upon installation completion. These drawings shall include, but not be limited to, the exact locations of all equipment, connections between all equipment, and wiring for all equipment as the system is installed.

3.4 Spare Parts Data

After shop drawings are approved, and not later than thirty (30) calendar days prior to the date of beneficial occupancy, a list of spare parts data for each item of specified materials and equipment shall be submitted. The data shall include a complete list of parts and supplies with current unit prices and source of supply. Spare parts shall consist of, but not be limited to, five (5) percent of all initiating and notification appliances with a minimum of one (1) each. All spare parts shall be on site prior to commencement of acceptance testing. Depleted spare parts shall be replaced prior to beneficial occupancy.

3.5 Operating Documents

The contractor shall furnish to the architect operating instructions outlining the step-by-step procedures required for system start-up, operation, and shutdown at least thirty (30) calendar days prior to acceptance test. The instructions shall include the manufacturer's name, system model number, service manual, parts list, and a description of all equipment and their basic operating features.

3.6 Maintenance Documents

The contractor shall furnish maintenance instructions listing routine maintenance procedures, possible breakdowns and repairs, and troubleshooting guides at least 30 calendar days prior to acceptance test.

3.7 Performance Test Reports

Upon the installed system completion and testing, test reports shall be submitted in booklet form showing all field tests performed to prove compliance with specified performance criteria.

3.8 Warranty

A copy of the manufacturer's warranty for all equipment and materials shall be provided. Warranty shall be for all equipment, materials, installation, and workmanship for a minimum of three (3) years, unless otherwise specified.

4.0 GENERAL COMPONENT REQUIREMENTS

4.1. Component Enclosure

Housings, power supply enclosures, terminal cabinets, control units, and other component housings, collectively referred to as enclosures shall be so formed and assembled as to be sturdy and rigid.

4.2 Electronic Components

A. All system electronic components shall be solid-state type, mounted on printed circuit boards. Light duty relays and similar switching devices shall be solid-state type or electromechanical.

4.3 Communicator

A. The DualComNF Series Universal Fire Alarm Communicator provides fully supervised network and cellular alarm communication paths for commercial fire alarm control panels. The communicator shall have hardware variants that make it compatible with either the AT&T® Cat M1 LTE network or the Verizon® Cat M1 LTE network:

DualComNF-LA for AT&T

DualComNF-LA for Verizon

4.4 Power Supplies

A. The communicator shall be powered from the 12/24V dc output of the Fire Alarm Control Panel or listed power supply. FACP or power supply standby batteries shall be sized to supply power to the communicator for 24 hours in the event of a utility power failure. Standby batteries shall be sealed lead-acid.

B. Controls shall be designed to maintain full battery charge when alternating current is available. Batteries shall be recharged to 85% capacity within 24 hours from battery use. The communicator shall be automatically transferred to battery power upon loss of alternating current power and return to alternating current power upon restoration. A signal shall be initiated upon failure of battery or alternating current power.

C. Approved power supplies shall meet or exceed the following power supply model specifications:

- UL Listed DMP 505-12: 12VDC 5 amp with transformer and enclosure.

4.5 Software

A. The Communicator must be “Flash ROM” updatable, and program must be held in non-volatile RAM.

B. The system shall interface with computer software with the capability to fully program the Communicator by connecting through the cellular or network interface using Dealer Admin™ or Remote Link™.

4.6 Programming Requirements

Notice to users, installers, authorities that have jurisdiction, and other involved parties: Product shall incorporate field-programmable software. In order for the product to comply with the requirements of a certificated installation, certain programming features or options shall be limited to specific values or not used at all as indicated below.

Program feature or option	Standard	Permitted?	Possible settings	Settings permitted
System Reports, RESTORAL	ANSI/UL 864	Y	NO, YES, DISARM	YES, DISARM
Communication, CHECKIN MINUTES	ANSI/UL 864	Y	3-240	3-238 (Dual Path) 3-58 (Single Path)
Communication, FAIL TIME MINUTES	ANSI/UL 864	Y	3-240	3-240 (Dual Path) 3-60 Single Path)

5.0 FUNCTIONAL DESCRIPTIONS

5.1 System Description

A. The Communicator shall capture Contact ID messages from any Fire Alarm Control Panel that communicates using the SIA communication standard DC-05-1999.09-DCS. Messages are then formatted into a DMP Serial 3 message and sent to an SCS-1R Receiver or SCS-VR Receiver.

5.2 Communication

A. The Communicator shall be capable of supporting Network communication using existing Ethernet data networks, satellite communication, fiber optic networks, local area networks, wide area networks. The communicator shall also support LTE cellular communication using retail data networks. The communicator shall be configured as:

a) A dual path system with primary network communication and back up cellular communication or

b) A single path system with network communication only or

c) A single path system with cellular communication only.

The communicator shall automatically indicate failure of a communication path to the fire alarm control panel.

6.0 INSTALLATION

6.1 System Component Installation

A. When used in NFPA 72 compliant installations, the Intrusion Detection/ Door Control or Household Fire Warning System shall be on an electrical circuit dedicated branch in accordance with the National Electrical Code (NEC) and the local authority having jurisdiction (AHJ).

B. Materials shall be installed in strict compliance with all local, state, county, province, district, federal and other applicable building, safety, and fire standards, laws, codes, regulations, and guidelines including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ).

7.0 SYSTEM COMPARISON

7.1 Basic Comparison Items Table

The table below lists features or points found necessary for successful installation and continued service of an integrated system. Compare your current system with the listed items. Please provide a certification document providing a clear and truthful statement that agrees with your response to each question.

Important Points	Explanation	Response	
Made in USA	Is your system engineered, designed, manufactured, assembled, and distributed from a location within the United States of America using U.S. and global components?	Yes	No
Forward and Backward compatibility	Because we want to preserve a maximum portion of our investment over time, can your system manufacturer certify that it has practiced forward and backward compatibility of main system components such as the panel, keypads, zone expansion devices, and relay output devices for a minimum of the last twenty (20) years?	Yes	No
Manufacturer Experience	Because we require extensive manufacturing experience, has your system controller manufacturer's primary role been in the security industry for a minimum of thirty (30) years?	Yes	No
System Messaging Compatibility	We require the maximum capabilities in communication offered by the manufacturer. Does your system controller manufacturer also engineer, and manufacture a receiver that receives all messages in less than six seconds? If so, can this receiver receive each and every status message that the controller sends?	Yes	No
Experience in Network Communication	Has your manufacturer been providing TCP/IP network communication for a minimum of fifteen (15) years?	Yes	No
Proven success in network communication capabilities.	Does your manufacturer have at least 15,000 installed systems which use network communication to report messages by way of a TCP/IP network?	Yes	No
No Invasive systems on our network	Because our network is so important to the operation of our business, we require that no additional PCs or terminals be allowed upon our network. Does your manufacturer require additional software or PC terminals in order to program or maintain operation of network monitoring functions?	Yes	No
Network monitoring flexibility and compliance	Because we require confirmation of the fitness of your monitoring capabilities, the system must be listed by approved compliance agencies. Can your manufacturer's controller provide network monitoring over a network that uses DHCP, NAT, or a static IP address?	Yes	No
Contractor experience	Because we require that the installing company is experienced and factory trained. We require each installer and service person who works on our system to be factory trained and must submit a certificate issued by the factory as proof of this training. Can your company provide these certification documents?	Yes	No

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