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## BACnet Testing Laboratories Product Listing

*BACnet functionality in each Listed product has been successfully tested at a Recognized BACnet Testing Organization utilizing the industry standard BTL test suite and test policies that were current at the time it was tested. For Listings with multiple products, some products may have less functionality than is indicated by the Listing document. The PICS document provides information on the specific functionality of each product. Note that PICS documents on the BTL Listings site are provided by the manufacturer and are not independently verified by BTL.*

### Listing Information (BTL-30858)

|   |                          |                |
|---|--------------------------|----------------|
| Vendor  |                          | Listing Status |
| Narezen, Inc.<br>Building B, Room 805, 401 Yangcheon-Ro<br>Gangseo-Gu, Seoul<br>Republic of Korea |                          | Listed Product |
| Test Requirements   | BACnet Protocol Revision | Date Tested    |
| Requirements as of January 2020   | Revision 14 (135-2012)   | May 2021       |

| Product Name | Model Numbers | Version                            |
|--------------|---------------|------------------------------------|
| MARK-20      | M20-800       | M 3.8.2<br>(BACnet SW 4.10.1.36.2) |

### Device Profiles

| Profile                           | Model Numbers |
|-----------------------------------|---------------|
| BACnet Building Controller (B-BC) | All models    |

## BIBBs Supported

|              |                                |           |
|--------------|--------------------------------|-----------|
| Data Sharing | ReadProperty-A                 | DS-RP-A   |
|              | ReadProperty-B                 | DS-RP-B   |
|              | ReadPropertyMultiple-A         | DS-RPM-A  |
|              | ReadPropertyMultiple-B         | DS-RPM-B  |
|              | WriteProperty-A                | DS-WP-A   |
|              | WriteProperty-B                | DS-WP-B   |
|              | WritePropertyMultiple-A        | DS-WPM-A  |
|              | WritePropertyMultiple-B        | DS-WPM-B  |
|              | Change Of Value-A              | DS-COV-A  |
|              | Change Of Value-B              | DS-COV-B  |
|              | Change Of Value Property-B     | DS-COVP-B |
|              | Change Of Value Unsubscribed-B | DS-COVU-B |
|              | View-A                         | DS-V-A    |
|              | Modify-A                       | DS-M-A    |

|                              |                                |           |
|------------------------------|--------------------------------|-----------|
| Alarm and Event Notification | Notification-A                 | AE-N-A    |
|                              | Notification Internal-B        | AE-N-I-B  |
|                              | Notification External-B        | AE-N-E-B  |
|                              | Acknowledge-A                  | AE-ACK-A  |
|                              | Acknowledge-B                  | AE-ACK-B  |
|                              | Alarm Summary-B                | AE-ASUM-B |
|                              | Enrollment Summary-B           | AE-ESUM-B |
|                              | Information-B                  | AE-INFO-B |
|                              | View Notifications-A           | AE-VN-A   |
|                              | View and Modify-A              | AE-VM-A   |
|                              | Configurable Recipient Lists-B | AE-CRL-B  |

|            |                   |            |
|------------|-------------------|------------|
| Scheduling | Internal-B        | SCHED-I-B  |
|            | External-B        | SCHED-E-B  |
|            | View and Modify-A | SCHED-VM-A |

|          |   |           |
|----------|---|-----------|
| Trending | Viewing and Modifying Trends Internal-B | T-VMT-I-B |
|          | Viewing and Modifying Trends External-B | T-VMT-E-B |
|          | Automated Trend Retrieval-A             | T-ATR-A   |
|          | Automated Trend Retrieval-B             | T-ATR-B   |
|          | View-A                                  | T-V-A     |

|                    |                                  |          |
|--------------------|----------------------------------|----------|
| Device Management  | Dynamic Device Binding-A         | DM-DDB-A |
|                    | Dynamic Device Binding-B         | DM-DDB-B |
|                    | Dynamic Object Binding-A         | DM-DOB-A |
|                    | Dynamic Object Binding-B         | DM-DOB-B |
|                    | DeviceCommunicationControl-B     | DM-DCC-B |
|                    | TimeSynchronization-A            | DM-TS-A  |
|                    | TimeSynchronization-B            | DM-TS-B  |
|                    | UTCTimeSynchronization-A         | DM-UTC-A |
|                    | UTCTimeSynchronization-B         | DM-UTC-B |
|                    | ReinitializeDevice-B             | DM-RD-B  |
|                    | Backup and Restore-B             | DM-BR-B  |
|                    | Restart-B                        | DM-R-B   |
|                    | List Manipulation-A              | DM-LM-A  |
|                    | List Manipulation-B              | DM-LM-B  |
|                    | Object Creation and Deletion-B   | DM-OCB-B |
|                    | Automatic Network Mapping-A      | DM-ANM-A |
|                    | Automatic Device Mapping-A       | DM-ADM-A |
|                    | Automatic Time Synchronization-A | DM-ATS-A |
|                    | Manual Time Synchronization-A    | DM-MTS-A |
|                    | Router Configuration-B           | NM-RC-B  |
| Embedded Objects-B | GW-EO-B                          |          |

## Object Type Support

|                        |                       |                    |
|------------------------|-----------------------|--------------------|
| Analog Input           | Analog Output         | Analog Value       |
| Binary Input           | Binary Output         | Binary Value       |
| Calendar               | Characterstring Value | Device             |
| Event Enrollment       | File                  | Integer Value      |
| Large Analog Value     | Loop                  | Multi-State Input  |
| Multi-State Output     | Multi-State Value     | Notification Class |
| Positive Integer Value | Schedule              | Structured View    |
| Trend Log              |                       |                    |

## Data Link Layer Options

|                     |   |
|---------------------|---|
| Media               | Options   |
| BACnet/IP (Annex J) | BBMD<br>Register as Foreign Device<br>BACnet/IP, 'DIX' Ethernet |
| MS/TP Master        | 9600, 19200, 38400, 57600, 76800, 115200                        |
| Ethernet            | ISO 8802-3, 10BASET   |

## Character Set Support

|                   |
|-------------------|
| ISO 10646 (UTF-8) |
| ISO 10646 (UCS-2) |