CETCI BACnet® Module for the

FCS-B Flexible Control System Controller

QCC-B Quad Channel Controller

LPT-B BACnet® Transmitter

2018.03

Critical Environment Technologies Canada Inc. (CETCI) has been granted the BACnet® Testing Laboratories (BTL) certification for the CETCI BACnet® Module upon passing the BTL requirements for the BACnet® Smart Actuator (B-SA) designation.

This document contains the BACnet® Protocol Implementation Conformance Statement (PICS) information that can also be found on the BACnet® International website at http://www.bacnetinternational.org

If you have any questions or required assistance, please do not hesitate to contact our service department for technical support.

Date: June 2016
Vendor Name: Critical Environment Technologies Canada Inc.
Product Name: CETCI BACnet® Module for QCC-B, FCS-B, LPT-P-B and LPT-B
Product Model Numbers: QCC-B, FCS-B, LPT-P-B, LPT-B
Application Software Version: 1.12
Firmware Revision: 1.00.81
BACnet® Protocol Version/Revision: 14

Product Description:
The CETCI BACnet® Module is a microprocessor intended to plug into CETCI's FCS Flexible Control System Controller, QCC Quad Channel Controller and the LPT-B BACnet® Transmitter to facilitate BACnet® communications protocol between the device and a building automation system commonly used in HVACr applications.

BACnet® Standardized Device Profile (Annex L):
☐ BACnet® Operator Workstation (B-OWS)
☐ BACnet® Building Controller (B-BC)
☐ BACnet® Advanced Application Controller (B-AAC)
☐ BACnet® Application Specific Controller (B-ASC)
☐ BACnet® Smart Sensor (B-SS)
☑ BACnet® Smart Actuator (B-SA)

List all BACnet® Interoperability Building Blocks Supported (Annex K):

BIBB	Service	Responds to
DS-RP-B	ReadProperty-B	X
DS-WP-B	WriteProperty-B	X
DM-DDB-B	Dynamic Object Device Binding-B	X
DM-DOB-B	Dynamic Object Binding-B	X
DM-DCC-B	DeviceCommunicationControl-B	X
DM-RD-B	ReinitializeDevice-B	X

Segment Capability:

Segment requests supported	Window Size	480
Segment requests supported	Window Size	480

Standard Object Types Supported:

An object type is supported if it may be present in the device. For each standard Object Type supported provide the following data:

1. Whether objects of this type are dynamically creatable using the CreateObject service
2. Whether objects of this type are dynamically deletable using the DeleteObject service
3. List of the optional properties supported
4. List of all properties that are writable where not otherwise required by this standard
5. List of proprietary properties and for each its property identifier, datatype, and meaning
6. List of any property range restrictions

Note: none of the object types listed in this section is dynamically creatable or dynamically deletable.

Note: the BACnet conformance codes are as follows:

O - Optional (may be required under some conditions)
R - Required, but not required to be writable (may be required to be writable under some conditions)
W - Not only required, but also required to be writable

The following codes are used in this document to describe how the properties are implemented:

R/W	Read/write
R/O	Read-only
R/O=value	Implemented as a read-only with the indicated value

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Device Object

Property	BACnet® Conf Code	Implementation
Object_Identifier	R	R/W
Object_Name	R	R/W
Object_Type	R	R/O="device"
System_Status	R	R/O="operational"
Vendor_Name	R	R/O
Vendor_Identifier	R	R/O
Model_Name	R	R/O
Firmware_Revision	R	R/O
Application_Software_Version	R	R/O
Location	O	R/W
Description	O	R/W
Protocol_Version	R	R/O=1
Protocol_Revision	R	R/O=14
Protocol_Services_Supported	R	R/O
Protocol_Object_Types_Supported	R	R/O
Object_List	R	R/O

Max_APDU_Length_Accepted	R	R/O=480
Segmentation_Supported	R	R/O="none"
Local_Time	O	R/O
Local_Date	O	R/O
UTC_Offset	O	R/W
Daylight_Savings_Status	O	R/O
APDU_Timeout	R	R/W=7000
Number_Of_APDU_Retries	R	R/W=1
Max_Master	O	R/O=127
Device_Address_Binding	R	R/O=empty list
Data_Base_Revision	R	R/O
Max-Info-Frames	O	R/O=1

Analog Input

Property	BACnet® Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="analog input"
Present_Value	R	R/O
Status_Flags	R	R/O
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Units	R	R/O
Property_List	R	R/O

Analog Output

Property	BACnet® Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="analog-output"
Present_Value	W	R/W
Status_Flags	R	R/O="all normal"
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Units	R	R/O
Priority_Array	R	R/O
Relinquish_Default	R	R/W
Property_List	R	R/O

Binary Input

Property	BACnet® Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="binary-input"
Present_Value	R	R/O
Status_Flags	R	R/O="all normal"
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Polarity	R	R/O
Property_List	R	R/O

Binary Output

Property	BACnet® Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="binary-output"
Present_Value	W	R/W
Status_Flags	R	R/O="all normal"
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Polarity	R	R/O
Priority_Array	R	R/O
Relinquish_Default	R	R/W

Data Link Layer Options:

☐ BACnet® IP, (Annex J)
☐ BACnet® IP, (Annex J), Foreign Device
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _____
☑ MS/TP Master Node (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 76800, 115200
☐ MS/TP Slave (Clause 9), baud rate(s):
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s):
☐ Point-To-Point, modem, (Clause 10), baud rate(s):
☐ LonTalk, (Clause 11), medium: _____
☐ Other:

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) ☑ Yes   ☐ No

Networking Options:

☐ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
☐ Annex H, BACnet Tunneling Router over IP
☐ BACnet®/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? ☐ Yes   ☑ No

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

☐ ANSI X3.4   ☐ IBM™/Microsoft™ DBCS   ☐ ISO 8859-1
☑ ISO 10646 (UTF-8) ☐ JIS C 6226   ☐ ISO 10646 (UCS-2)
☐ ISO 10646 (UCS-4)

Network Security Options:

☑ Non-secure Device - is capable of operating without BACnet® Network Security

FCS-B, QCC-B and LPT-B WAN BACnet® Communications Defaults:

- Baud rate =78,600 (default, configurable)
- Base address = 270 (default, configurable)
- MAC address = 100 (default, configurable)
- Parity = no parity
- Stop bits = 1
- Data bits = 8

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