

BACnet Protocol Implementation Conformance Statement

Date: October 27, 2008

Vendor Name: ABB, Inc

Product Name: BACnet Router

Product Model Number: RBIP-01

Applications Software Version: 1.1

Firmware Revision: 2.1

BACnet Protocol Revision: 4

Product Description:

The ABB RBIP-01 snap-on module is a high-performance BACnet router for ABB standard drives for HVAC, ACH550. This router supports 10/100 MBit/s BACnet/IP and BACnet over Ethernet networks, as well as BACnet MS/TP (EIA-485) network.

The RBIP-01 router supports all standardized BACnet MS/TP baud rates up to 76.8k, as well as the master mode functionality. BBMD (BACnet Broadcast Management Device) and FD (Foreign Device) functionalities are also supported. The web server functionality enables access and configuration of the router using a standard web browser.

The RBIP-01 snap-on router is fully compatible with ABB standard drives for HVAC, ACH550, including older product generations. The router fits inside the drive and does not affect the enclosure class of the drive. The router can be powered from the drive or from an external power supply.

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):

DS-RP-B	Data Sharing-ReadProperty-B
DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
DS-WP-B	Data Sharing-WriteProperty-B
DS-WPM-B	Data Sharing-WritePropertyMultiple-B
DM-DDB-B	Device Management-DynamicDeviceBinding-B
DM-DOB-B	Device Management-DynamicObjectBinding-B
DM-DCC-B	Device Management-DeviceCommunicationControl-B
DM-RD-B	Device Management-ReinitializeDevice-B

Segmentation Capability:

- Segmented requests supported Window Size: 16
- Segmented responses supported Window Size: 16

Standard Object Types Supported:

Object instantiation is static, i.e. objects cannot be created or deleted. Refer to tables at end of this document for object details.

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 (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- 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:

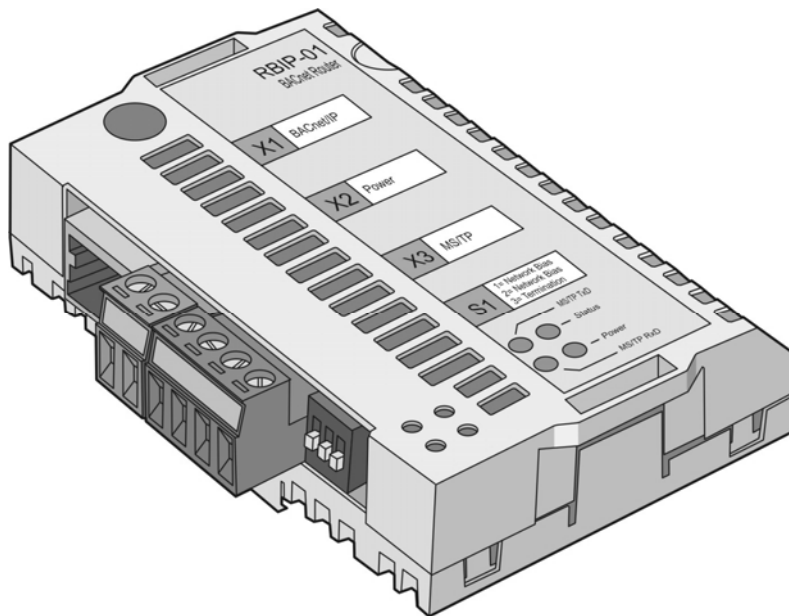
- Router, Clause 6
 - BACnet/IP to MS/TP
 - BACnet/ ISO 8802-3, Ethernet to MS/TP
 - BACnet/IP to BACnet/ ISO 8802-3, Ethernet
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)
 - Does the BBMD support registrations by Foreign Devices? Yes No
 - Max BDT (Broadcast Distribution Table)-Entries: 30

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 (UCS-2)
- ISO 10646 (UCS-4)
- JIS C 6226

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:



Object/Property Support Matrix

The following table summarizes the Object Types/Properties Supported:

Property Identifier	Property Datatype	Conformance Code 135-2004	Conformance Code RBIP-01
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
System_Status	BACnetDeviceStatus	R	R
Vendor_Name	CharacterString	R	R
Vendor_Identifier	UnsignedI6	R	R
Model_Name	CharacterString	R	R
Firmware_Revision	CharacterString	R	R
Application_Software_Version	CharacterString	R	R
Location	CharacterString	O	R
Description	CharacterString	O	R
Protocol_Version	Unsigned	R	R
Protocol_Revision	Unsigned	R	R
Protocol_Services_Supported	BACnetServicesSupported	R	R
Protocol_Object_Types_Supported	BACnetObjectTypesSupported	R	R
Object_List	BACnetARRAY[N]of BACnetObjectIdentifier	R	R
Max_APDU_Length_Accepted	Unsigned	R	R
Segmentation_Supported	BACnetSegmentation	R	R
Max_Segments_Accepted	Unsigned	O	R
VT_Classes_Supported	List of BACnetVTClass	O	-
Active_VT_Sessions	List of BACnetVTSession	O	-
Local_Time	Time	O	-
Local_Date	Date	O	-
UTC_Offset	INTEGER	O	-
Daylight_Savings_Status	BOOLEAN	O	-
APDU_Segment_Timeout	Unsigned	O	R
APDU_Timeout	Unsigned	R	R
Number_Of_APDU_Retries	Unsigned	R	R
List_Of_Session_Keys	List of BACnetSessionKey	O	-
Time_Synchronization_Recipients	List of BACnetRecipient	O	-
Max_Master	Unsigned (1...127)	O	W
Max_Info_Frames	Unsigned (1...127)	O	W
Device_Address_Binding	List of BACnetAddressBinding	R	R
Database_Revision	Unsigned	R	R
Configuration_Files	BACnetARRAY[N] of BACnetObjectIdentifier	O	-
Last_Restore_Time	BACnetTimeStamp	O	-
Backup_Failure_Timeout	UnsignedI6	O	-
Active_COV_Subscriptions	List of BACnetCOVSubscription	O	-
Slave_Proxy_Enable	BACnetArray[N] of BOOLEAN	O	-
Manual_Slave_Address_Binding	List of BACnetAddressBinding	O	-
Auto_Slave_Discovery	BACnetArray[N] of BOOLEAN	O	-
Slave_Address_Binding	List of BACnetAddressBinding	O	-
Profile_Name	CharacterString	O	-