



*Control Solutions' Babel Buster BB2-7040* is a BACnet® client/server device that functions as a ZigBee® Coordinator and gateway. After setting up the appropriate mappings in the BB2-7040, data from ZigBee sensors will appear as BACnet objects on BACnet IP and/or BACnet MS/TP. Data written to BACnet objects can also be propagated to ZigBee actuators by the BB2-7040. As a BACnet client, the BB2-7040 can also read data from other BACnet devices and share that with ZigBee devices.

The BB2-7040 expects most ZigBee endpoints to be low power devices that spend most of their time sleeping. The BB2-7040 operates primarily in Listen mode, simply waiting for ZigBee devices to report in. When the ZigBee devices do report in, the BB2-7040 searches its known device list and data maps to see if the reported data should be saved as a local BACnet object's Present Value.

The collection of BACnet objects found in the BB2-7040 will maintain the most recently received ZigBee data as their Present Value. Other BACnet clients may then query the BB2-7040 server to obtain that most recent data using a simple Read Property request.

BACnet clients may use a Write Property request to any of the BB2-7040's output objects to send data to a ZigBee device when mapped for writing. The BB2-7040 will transmit to the ZigBee device, and a properly configured ZigBee device will receive the transmission at the end of its sleep period.

## FEATURES

- Read/Write ZigBee devices via BACnet objects
- Functions as ZigBee Coordinator (Router optional)
- AI, AO, AV, BI, BO, BV, MSI, MSO, MSV objects
- COV, COVP subscription support
- BBMD support
- Bidirectional communication between BACnet and ZigBee
- Commandable BACnet objects implement priority array
- User programmable with Script Basic
- Embedded web server supports User HTML web pages
- Hardened EIA-485 transceiver for MS/TP port
- MS/TP baud rates: 9600, 19200, 38400, 76800
- Powered by 12-24V DC/AC 50/60 Hz
- Power Consumption: 0.2A @ 24VDC
- Transmit power: 50mW North America, 10mW Europe
- DIN rail mounting, 100mm H x 70mm W x 60mm D (excluding antenna - RPSMA connector)
- Pluggable screw terminal blocks
- Operating temperature -40°C to +85°C
- Humidity 5% to 90%
- FCC, CE Mark
- Listed to UL 916 and (Canadian) C22.2 No. 205-M1983





## Built-In Web Server for Configuration and Diagnostics



BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 10 March 2010  
 Vendor Name: Control Solutions, Inc.  
 Product Name: Babel Buster BB2-7040  
 Product Model Number: BB2-7040  
 Applications Software Version: 3.02  
 Firmware Revision: 3.02  
 BACnet Protocol Revision: 2

Product Description: Network gateway allowing ZigBee devices to be accessed via BACnet IP or BACnet MS/TP as a BACnet slave.

BACnet Standardized Device Profile (Annex L):

- ▶ BACnet Smart Sensor (B-SS)
- ▶ BACnet Smart Actuator (B-SA)

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

DS-RP-B, DS-RPM-B, DS-WP-B, DS-COV-B, DS-COVP-B,  
 DM-DDB-B, DM-DOB-B, DM-RD-B

Segmentation Capability: (None)

Standard Object Types Supported:

Object types: AI, AO, AV, BI, BO, BV, MSI, MSO, MSV, DEV (all static)  
 See additional documentation for optional & proprietary properties.

Data Link Layer Options:

- ▶ BACnet IP (Annex J)
- ▶ MS/TP Master (clause 9), baud rates: 9600, 19200, 38400, 76800
- ▶ MS/TP Slave (clause 9), baud rates: 9600, 19200, 38400, 76800

Device Address Binding:

Is static device binding supported? No

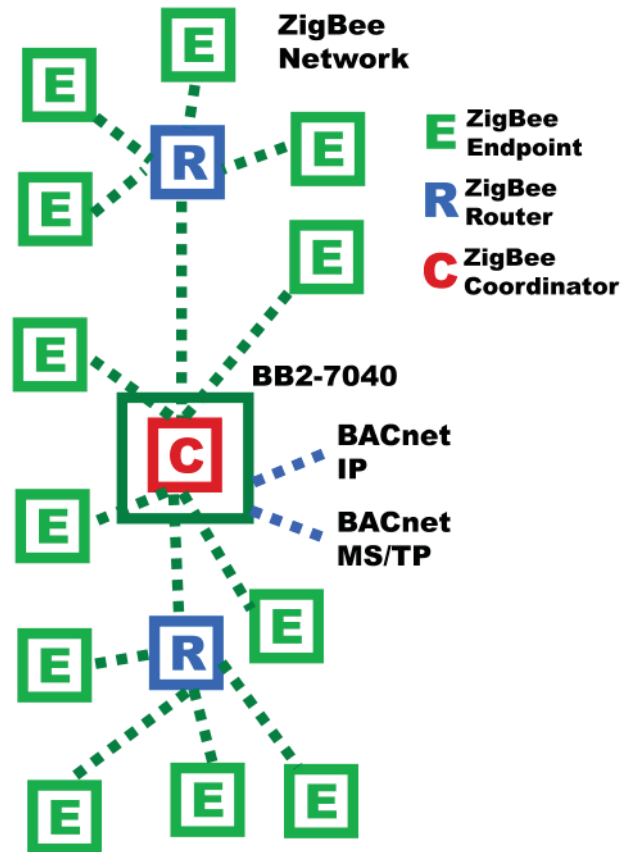
Networking Options: (None)

Character Sets Supported: ANSI X3.4

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

ZigBee wireless devices.

## Typical Network



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