BACnet Advanced Application Controller

BACnet Protocol Implementation Conformance Statement

Date:	**Oct 13, 2010**
Vendor Name:	**Delta Electronics, Inc.**
Manufacturer:	**Airtek International, Inc.**
Product Name:	**BACnet Advanced Application Controller**
Product Model Number:	**DAC8846B, DAC8846B+, DAC8864B, DAC8864B+, DACU842B, DACU842B+, DACB, DACSMSB, DACV403B**
Firmware Revision:	**V1.05**
BACnet Protocol Revision:	**4**

Product Description:
DAC series controllers are standalone BACnet B-AAC class programmable controllers. They are designed for monitor and control building electromechanical device, large AHU, clean room, fume hood, VAV, large-scale end device control, and the alarm message service module. They conform international BACnet MS/TP communication protocol and fully compatible with other BACnet system. They can work in a 76,800 bps BACnet MS/TP network and have a MSnet port for a user interface device. The MSnet port can connect to a LCD control panel for control, monitor, and setting the system. DAC has a 32 bit microprocessor and has some I/O points. Its digital outputs are dry contact relays and analog output can be 4~20mA or 0~10VDC. Its EIM port can connect 4 or 12 EIM modules. Total number of I/O points can be selected by using different combination of EIMs.

BACnet Standardized Device Profile (Annex L):

☐ **BACnet Operator Workstation (B-OWS)**

☐ **BACnet Advanced Operator Workstation (B-AWS)**

☐ **BACnet Operator Display (B-OD)**

☐ **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-A	DS-WP-B	AE-ACK-A	DM-DDB-A	DM-TS-B
DS-RP-B	DS-WPM-B	AE-ACK-B	DM-DDB-B	DM-UTC-B
DS-RPM-A	AE-N-A	AE-INFO-B	DM-DOB-B	DM-RD-B
DS-RPM-B	AE-N-I-B	SCHED-I-B	DM-DCC-B	DM-OCD-B
DS-WP-A	AE-N-E-B	SCHED-E-B	DM-BR-B	

Segmentation Capability:

☐ Segmented requests supported

◉ Segmented responses supported Window Size 6

Standard Object Types Supported:

Analog Value Dynamically Creatable :No Dynamically Deletable :No

Optional Properties Supported:	Description Device-type Min_Pres_Value Max_Pres_Value	
Writable Properties:	Description Present_Value Units Device-type Out_Of_Service Min_Pres_Value Max_Pres_Value	Limit: 128 characters writable when out-of-service Only 'A'/'V'/'P'/'T'/'5'/'3'

Analog Output

	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description Device-type	
Writable Properties:	Description Present_Value Relinquish_Default Units Out_Of_Service Device-type	Limit:128 characters Range: REAL 0.0~100.0 Range: REAL 0.0~100.0 Only 'A'/'V'

Analog Value

	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description	
Writable Properties:	Description Limit: Present_Value Units	128 characters

Binary Input

	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description	
Writable Properties:	Description Present_Value Out_Of_Service Polarity	Limit: 128 characters writable when out-of-service

Binary Output

	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description	
Writable Properties:	Description Present_Value Relinquish_Default Out_Of_Service Polarity	Limit: 128 characters

Binary Value

	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description	
Writable Properties:	Description Present_Value Relinquish_Default	Limit: 128 characters

Calendar

	Dynamically Creatable :Yes	Dynamically Deletable : Yes

Optional Properties Supported:	Description	
Writable Properties:	Description	Limit: 128 characters
	Object_Name	Limit: 128 characters
	Date_List	
Device	Dynamically Creatable :No	Dynamically Deletable :No
Optional Properties Supported:	Description	
	Location	
	Max_Segments_Accepted	
	Local_Time	
	Local_Date	
	UTC_Offset	
	Daylight_Savings_Status	
	APDU_Segment_Timeout	
	Max_Master	
	Max_Info_Frames	
	Last_Restore_Time	
	Configuration_Files	
	Backup_Failure_Timeout	
Writable Properties:	Description	Limit: 128 characters
	Object_Name	Limit: 128 characters
	Location	Limit: 128 characters
	Local_Time	
	Local_Date	
	UTC_Offset	Range :-780~780
	Daylight_Savings_Status	
	APDU_Segment_Timeout	Range : 1000~60000
	APDU_Timeout	Range : 1000~60000
	Number_Of_APDU_Retries	Range : 0~16
	ax_Master	Range :1~127
	Max_Info_Frames	Range : 10~200
	Backup_Failure_Timeout	Range : 1~60000
Event Enrollment	Dynamically Creatable :Yes	Dynamically Deletable : Yes
Optional Properties Supported:	Description	
Writable Properties:	Description	Limit: 128 characters
	Object_Name	Limit: 128 characters
	Notify_Type	
	Event_Parameters	
	Object_Property_Reference	
	Event_Enable	
	Notification_Class	
File	Dynamically Creatable :No	Dynamically Deletable : No
Optional Properties Supported:	Description	
Writable Properties:	Archive	
	File_Size(File 1024)	Only Program 1024 program-
	stat != running	
Notification Class	Dynamically Creatable :Yes	Dynamically Deletable : Yes
Optional Properties Supported:	Description	

Writable Properties:	Description	Limit: 128 characters
	Object_Name	Limit: 128 characters
	Priority	
	Recipient_List	
	ACK_Required	
Program	Dynamically Creatable :No	Dynamically Deletable : No
Optional Properties Supported:	Description	
	Reson_for_Halt	
	Description_of_Halt	
Writable Properties:	Program_Change	
Schedule	Dynamically Creatable :Yes	Dynamically Deletable : Yes
Optional Properties Supported:	Description	
	Weekly_Schedule	
	Exception_Schedule	
Writable Properties:	Description	Limit: 128 characters
	Object_Name	Limit: 128 characters
	Effective_Period	
	Weekly_Schedule	
	Exception_Schedule	
	List_of_Object_Prop_Ref	
	Priority_for_Writing	
	Out_Of_Service	
	Schedule_Default	Datatype : Null / Boolean / Unsigned Integer / Signed Integer / Real / Enumerated
	Present_Value	writable when out-of-service Datatype :Null / Boolean / Unsigned Integer / Signed Integer / Real / Enumerated

Data Link Layer Options:

☐ BACnet IP, (Annex J)
☐ BACnet IP, (Annex J), Foreign Device
☐ISO 8802-3, Ethernet (Clause 7)
☐ ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s)
◉ MS/TP master (Clause 9), baud rate(s): 76.8k, 38.4k, 19.2k, 9600 bps
☐ 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:
☐ BACnet/ZigBee (ANNEX O)
☐ 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)

Character Sets Supported:

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

◉ ANSI X3.4	☐ IBMÔ/MicrosoftÔ 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:

The MSnet port is programmable to be a master or a slave MODBUS RTU port to work with other MODBUS facility.