TECHNICAL DATA SHEET
DS0122 rev 4

INTEGRA™ IT-8000 (EMEA & FE)

DESCRIPTION

Part of the INTEGRA™ family, the IT-8000 is an embedded Internet of Things (IoT), BTL-listed BACnet® Building Controller (B-BC) that connects to ABB's Cylon BACnet field controllers. The IT-8000 is also capable of connection to and network management of a variety of diverse devices and subsystems using various protocols including, but not limited to, Modbus™ and LonWorks™.

When connected to an Ethernet or wireless LAN, the IT-8000 uses Internet connectivity and web-serving capability (appropriate security measures required, such as VPN or firewall) to provide integrated control, supervision, network management, scheduling, data logging, alarming, and rich graphical displays through a standard Web browser.

APPLICATION

With simple configuration, tool-less installation, enhanced integration and high-powered performance, the INTEGRA™ IT-8000 controller provides ultimate flexibility in connecting and controlling buildings worldwide.

- Remote connectivity allows control, monitoring, and management of field controllers
- Scalable hardware and software make it suitable for installation in small building to large campus applications
- The INTEGRA-Supervisor software can connect multiple IT-8000 controllers and their data to provide aggregated information, such as; archiving, master scheduling, real-time data, history, and alarms, to create a single, unified application.

The licensing model for the INTEGRA™ IT-8000 controller is scalable and features standard drivers along with optional I/O and field bus expansion modules for ultimate flexibility and expandability. The INTEGRA™ IT-8000 controller operates with Niagara Framework® for optimum performance.

TI AM3352: 1000MHz ARM® Cortex™-A8

1GB DDR3 SDRAM and 4GB flash storage using a removable micro-SD card

Wi-Fi Client or Wireless Access Point

- IEEE802.11n HT20 @ 2.4GHz
- IEEE802.11n IEEE802.11n HT20/HT40 @ 5GHz
- Configurable radio (Off, WAP, or Client) WPAPSK / WPA2PSK

Ports and Connections

- Two 10/100MB Ethernet ports
- Two on-board isolated RS-485 ports for connecting BACnet MS/TP and Modbus RTU devices
- One USB Type A Connector supports stations back-up and restore

Secure boot, Battery-less, Real time clock

Expandable Option Modules

- IT8-NPB-LON – LonWorks LON FTT10A module
- IT8-NPB-2X-485 – Dual port RS-485 module
- IT8-NPB-232 – Single port RS-232 module

INTEGRA-ProPack Service

ABB Cylon Service for quick database import that automatically creates BACnet network, devices and points without the need for discovery

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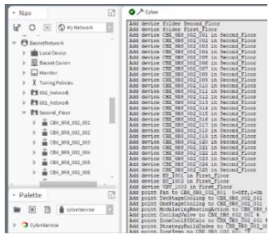
INTEGRA-ProPack

IMPORT OF NETWORK DATA FROM CXpro^{HD} TO AUTOMATICALLY CREATE BACNET NETWORK, DEVICES AND POINTS



The **IT-8000** uses ABB's Cylon **INTEGRA-ProPack** service to reduce deployment time when connecting to the ABB Cylon BACnet field controllers. The **INTEGRA-ProPack** is a database import tool that automatically creates the BACnet network, devices and points in the IT-8000. This service helps to reduce programming time when deploying a new project to the **IT-8000**. The **INTEGRA-ProPack** quickly and easily exports network data from **CXpro^{HD}** and imports it into the **IT-8000**, without the need to discover controllers and points.

SPECIFICATIONS

CONNECTION

Note: Use Copper or Copper Clad Aluminum 70 °C conductors only.

Terminals	PCB mounted plug terminal connections
Conductor Area	Max: AWG 12 (3.31 mm^2) Min: AWG 22 (0.355 mm^2)

MAXIMUM EXPANSION MODULES SUPPORTED

IT8-NPB-LON	4
IT8-NPB-232	4
IT8-NPB-2X-485	2

ENVIRONMENT

Note: This equipment is intended for field installation within an enclosure.

Operating Temperature	-4 °F … 140 °F [-20 °C … 60 °C]
Storage Temperature	-40 °F … 185 °F [-40 °C … 85 °C]
Ambient Humidity	5% … 95% RH non-condensing
Shipping & Vibration	ASTM D4169, Assurance Level II
MTTF	10 years +

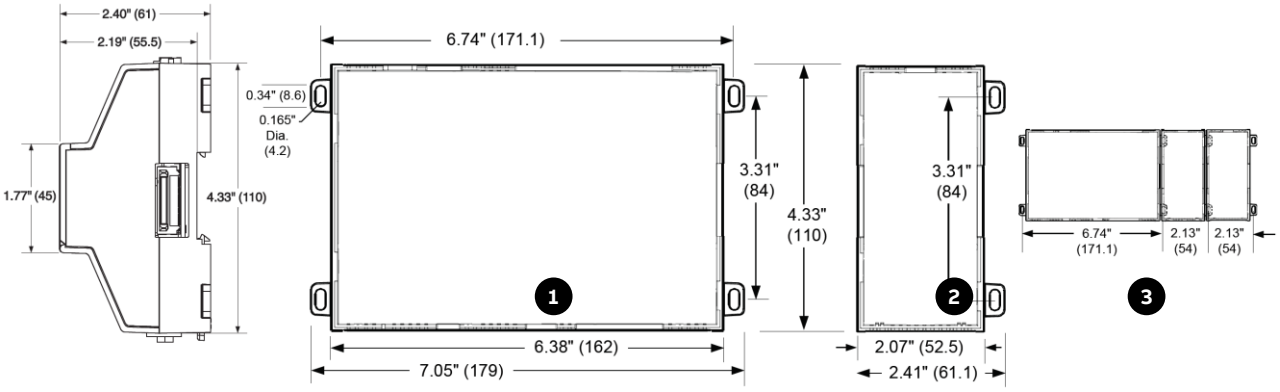
AGENCY CERTIFICATIONS

UL 916
CE EN 61326-1
FCC Part 15 Subpart B, Class B | FCC Part 15 Subpart C
C-UL Listed to Canadian Standards Association (CSA)C22.2 No. 205-M1983 "Signal Equipment"
1999/5/EC R&TTE Directive
CCC | SRRC | RSS | RoHS

DIMENSIONS AND WIRING

Note: *Compatible with (DIN43880) enclosures*
Suitable for mounting to a panel or to an EN50022 standard 35mm rail

IT-8000



1	IT-8000 controller. Allow at least 1.5" (38mm) clearance around all sides and minimum 3" (76mm) at bottom for Wi-Fi antenna
2	Expansion module. Up to four (4) may be used. See "Expansion Modules" and "I/O Configuration"
3	Distances between center tabs from one unit to another unit

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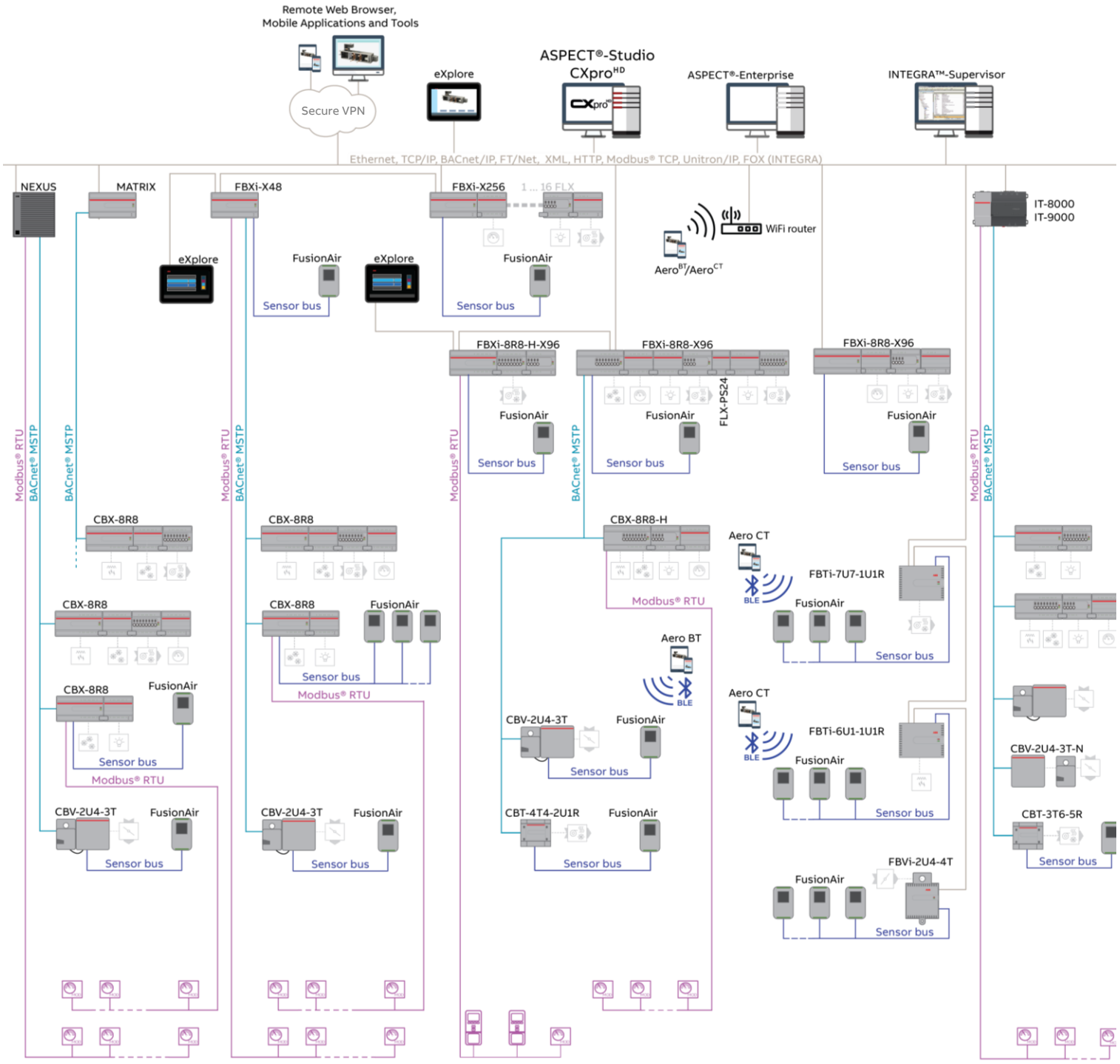
SYSTEM ARCHITECTURE



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ORDERING INFORMATION

IT-8000 US WLAN Wi-Fi BUNDLES

IT-8005-USWIFI-E	Includes core license for 250 points.
IT-8010-USWIFI-E	Includes core license for 500 points.
IT-8025-USWIFI-E	Includes core license for 1250 points.
IT-8100-USWIFI-E	Includes core license for 5000 points.
IT-8200-USWIFI-E	Includes core license for 10000 points.

IT-8000 WW (Worldwide) WLAN Wi-Fi BUNDLES

IT-8005-WWWIFI-E	Includes core license for 250 points.
IT-8010-WWWIFI-E	Includes core license for 500 points.
IT-8025-WWWIFI-E	Includes core license for 1250 points.
IT-8100-WWWIFI-E	Includes core license for 5000 points.
IT-8200-WWWIFI-E	Includes core license for 10000 points.

IT-8000 ACCESSORIES

IT8-NPB-2X-485	IT-8000 add-on dual port RS-485 module
IT8-NPB-232	IT-8000 add-on single port RS-232 module
IT8-NPB-LON	IT-8000 add-on single port LON FTT10A module
IT8-WPM	IT-8000 wall plug module. 100-240 VAC, 50/60 Hz. Connect to the 2.5 mm barrel plug, 24 V input to the IT-8000 and includes, US, EU, UK and AU plugs
IT8-WIFI-EXT	IT-8000 extension cable and bracket for WLAN antenna

IT-8000 INITIAL DEVICE CAPACITY PACK

IT8-010-DCP-E	Adds support for an additional 500 points to the core (IT8-XXX-COR). Purchased at time of initial order with core software.
IT8-025-DCP-E	Adds support for an additional 1,250 points to the core (IT8-XXX-COR). Purchased at time of initial order with core software.
IT8-050-DCP-E	Adds support for an additional 2,500 points to the core (IT8-XXX-COR). Purchased at time of initial order with core software.

IT-8000 FIELD UPGRADE FOR DEVICE CAPACITY PACK

IT8-010-DCU-E	Adds support for an additional 500 points to the core (IT8-XXX-COR). Purchased any time after initial core software purchase.
IT8-025-DCU-E	Adds support for an additional 1,250 points to the core (IT8-XXX-COR). Purchased any time after initial core software purchase.
IT8-050-DCU-E	Adds support for an additional 2,500 points to the core (IT8-XXX-COR). Purchased any time after initial core software purchase.

IT-8000 SERVICE AND MAINTENANCE AGREEMENTS

IT8-005-SM0	18-month software maintenance agreement.
IT8-005-SM1	1-year software maintenance agreement for core software IT8-005-COR.
IT8-005-SM3	3-year software maintenance agreement for core software IT8-005-COR.
IT8-005-SM5	5-year software maintenance agreement for core software IT8-005-COR.
IT8-010-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software IT8-010-COR. Optional 3 or 5-year maintenance may be substituted.
IT8-010-SM1	1-year software maintenance agreement for core software IT8-010-COR.
IT8-010-SM3	3-year software maintenance agreement for core software IT8-010-COR.
IT8-010-SM5	5-year software maintenance agreement for core software IT8-010-COR.
IT8-025-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software IT8-025-COR. Optional 3 or 5-year maintenance may be substituted.
IT8-025-SM1	1-year software maintenance agreement for core software IT8-025-COR.
IT8-025-SM3	3-year software maintenance agreement for core software IT8-025-COR.
IT8-025-SM5	5-year software maintenance agreement for core software IT8-025-COR.
IT8-100-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software IT8-100-COR. Optional 3 or 5-year maintenance may be substituted.
IT8-100-SM1	1-year software maintenance agreement for core software IT8-100-COR.
IT8-100-SM3	3-year software maintenance agreement for core software IT8-100-COR.

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IT8-100-SM5	5-year software maintenance agreement for core software IT8-100-COR.
IT8-200-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software IT8-200-COR. Optional 3 or 5-year maintenance may be substituted.
IT8-200-SM1	1-year software maintenance agreement for core software IT8-200-COR.
IT8-200-SM3	3-year software maintenance agreement for core software IT8-200-COR.
IT8-200-SM5	5-year software maintenance agreement for core software IT8-200-COR.

IT-8000 CONTROL ENGINE DRIVERS

IT8-DR-AC	Andover Controls AC256 over RS-232 or RS-485. (Beta version only)
IT8-DR-AINF	Andover Controls Infinity.
IT8-DR-APHP	American Auto-Matrix PHP over RS-232 or RS-485. Manufactured by 3rd party. Limited support.
IT8-DR-APUP	American Auto-Matrix PUP over RS-232 or RS-485. Manufactured by 3rd party. Limited support.
IT8-DR-CCN	Carrier Comfort Network.
IT8-DR-FLEX	Flex over RS-232 or RS-485.
IT8-DR-JSON	IT-8000 JSON Toolkit.
IT8-DR-MCQUAY	McQuay to OPM driver.
IT8-DR-MFID	Micros Fidelio IP driver.
IT8-FIPS	Provides FIPS 140-2 Level 1 conformance using the integrated FIPS certified BouncyCastle module for IT-8000. Requires IT-8000 version 4.6 and later.

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