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bioCLASS Revision A and B Differences

TECHNICAL NOTE - 120

TN0120_A.0

June 12, 2008

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Introduction

This technical note introduces the differences between revision A and revision B bioCLASS Biometric Keypad Smart Card readers. The revision A bioCLASS readers have been phased out by HID; the revision B bioCLASS reader has taken its place.

Differences

There are several differences between the revision A and B bioCLASS readers. Designing for RoHS compliance was a primary motivation for revising the bioCLASS reader.

RoHS

Revision B bioCLASS reader is RoHS compliant.

Impact for Migration from Revision A to B bioCLASS: RoHS compatible bioCLASS readers are saleable where RoHS is required (EMEA for example).

Optical Sensor

Revision B bioCLASS reader has a new optical sensor. bioCLASS revision A readers incorporated a capacitive sensor.

Impact for Migration from Revision A to B bioCLASS: The security of the optical sensor is comparable to the capacitive sensor. However, through beta testing, customers have noticed improved fingerprint template acquisition time.

Template size and positioning

Revision B bioCLASS reader yields a compact template size.

Impact for Migration from Revision A to B bioCLASS: For customers that use the smartcard for other applications, the revision B bioCLASS readers now offer more space for those applications. Enrolling revision B templates takes up only 2-3 pages of space on an 8 page card. This is compared to 7 pages used when storing revision A templates.

If revision A readers (and templates on the card) are previously installed, revision B template programmers are configured to match revision A template; creating backward compatible link with revision A template cards and readers.

Programmer Software

Revision B bioCLASS reader provides enrollment of a fingerprint template, regardless of the programmer that captured that template. High-security is an exception, where the programmer that programs the card must also enroll the template. HID Global programs Elite cards and therefore are not compatible with the Programmer software.

Impact for Migration from Revision A to B bioCLASS: Without worrying where a card was programmed, customers enroll fingerprint templates using the programmer software.

Firmware

Revision B bioCLASS readers use 2nd generation firmware (found with revision B with PIV II readers). This firmware fixes anomalies found in revision A readers. The 2nd generation platform is included in the iCLASS revision B with PIV II readers such as the R10, R40, RP40, and RPK40.

Impact for Migration from Revision A to B bioCLASS: Quality improvements increase product performance.

Connectors

Revision B bioCLASS readers use the 7-pin connectors found in the 2nd Generation platform.

Impact for Migration from Revision A to B bioCLASS: Alternate wiring is required when migrating to revision B bioCLASS readers.

Current Consumption

Revision B bioCLASS readers have significantly reduced average and peak currents.

Revision B bioCLASS		Revision A bioCLASS	
Average	Peak	Average	Peak
300mA	350mA	350mA	520mA

Reader/Writer (Serial) Communication Support

Revision B bioCLASS readers includes serial interface support over RS232, RS485 (full-duplex), USB or UART hardware interface. The serial interface support is exclusive, meaning that only one serial interface is supported at one time. See frequently asked questions for more details on reader/writer part numbers.

Conversely, revision A bioCLASS readers support RS232, RS485 (half or full-duplex) and USB. These hardware interfaces are offered.

Impact for Migration from Revision A to B bioCLASS: Thus, when ordering revision B bioCLASS reader writers, customers must now specify the serial interface to accompany the reader/writer.

Frequently Asked Questions

Q1. What are the visual differences between the revision A and B bioCLASS readers?



Revision A



Revision B

Q2. Can revision B bioCLASS readers read revision A templates?

Yes. Revision B bioCLASS readers will read both the revision A and revision B fingerprint templates. The bioCLASS revision B programmer also programs revision A or B fingerprint templates. However, the revision A bioCLASS readers cannot read revision B templates.



Q3. Can a customer enroll fingerprint templates without purchasing a card programmer?

Currently only revision A of the CP575 Fingerprint Enrollment kit (6251A) is available.

Q4. What is the pricing difference between revision A and B bioCLASS readers?

The pricing is the same (Reader or Reader/Writer; revision A or B). One difference is the customer now selects the type of interface if selecting a Reader/Writer. The interfaces supported are the same for all revision B bioCLASS Reader/Writer products.

Reader Only

6180BKT000000 – bioCLASS Reader Only; Wiegand

6188BKT000000 – bioCLASS Reader Only; Clock-and-Data

Reader / Writer

6181BKT000000 – bioCLASS Reader/Writer; RS232 Interface

6181BK4000000 – bioCLASS Reader/Writer; RS485 Interface

6181BKU000000 – bioCLASS Reader/Writer; USB Interface

6181BKB000000 – bioCLASS Reader/Writer; UART Interface

Q5. Do LCD only versions follow the same part numbering and pricing as bioCLASS?

Yes.

Reader Only

6170BKT000000 – LCD Reader Only; Wiegand

6172BKP000000 – LCD Reader Only; HADP/OSDP

6178BKT000000 – LCD Reader Only; Clock-and-Data

Reader / Writer

6171BKT000000 – LCD Reader/Writer; RS232 Interface

6171BK4000000 – LCD Reader/Writer; RS485 Interface

6171BKU000000 – LCD Reader/Writer; USB Interface

6171BKB000000 – LCD Reader/Writer; UART Interface



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