

Appendix A: UDI HRI formats

HIBCC Standards

Issuing Agency /Entity	Qualifier	Identifier	Data type	Human Readable Field Size	Database Field size
HIBCC	+	UDI-DI	Alphanumeric	7 to 24	6 to 23
HIBCC	\$	Lot Number Only	Alphanumeric	19	18
HIBCC	\$\$7	Lot Number Only (alternative option)	Alphanumeric	21	18
HIBCC	\$\$	Expiration Date followed by Lot Number	Exp. Date: numeric [MMYY]	6	4
			Lot Number: alphanumeric	18	18
HIBCC	\$\$2	Expiration Date followed by Lot Number	Exp. Date: numeric [MMDDYY]	9	6
			Lot Number: alphanumeric	18	18
HIBCC	\$\$3	Expiration Date followed by Lot Number	Exp. Date: numeric [YYMMDD]	9	6
			Lot Number: alphanumeric	18	18
HIBCC	\$\$4	Expiration Date followed by Lot Number	Exp. Date: numeric [YYMMDDHH]	11	8
			Lot Number: alphanumeric	18	18
HIBCC	\$\$5	Expiration Date followed by Lot Number	Exp. Date: numeric [YYJJJ] – Julian Date format	8	5
			Lot Number: alphanumeric	18	18
HIBCC	\$\$6	Expiration Date followed by Lot Number	Exp. Date: numeric [YYJJJHH] – Julian Date format with Hour option	10	7
			Lot Number: alphanumeric	18	18
HIBCC	\$+	Serial Number only	Alphanumeric	20	18
HIBCC	\$\$+7	Serial Number only (alternative option)	Alphanumeric	22	18
HIBCC	\$\$+	Expiration Date followed by Serial Number	Exp. Date: numeric [MMYY]	7	4
			Serial Number: alphanumeric	18	18

Issuing Agency /Entity	Qualifier	Identifier	Data type	Human Readable Field Size	Database Field size
HIBCC	\$\$+2	Expiration Date followed by Serial Number	Exp. Date: numeric [MMDDYY]	10	6
			Serial Number: alphanumeric	18	18
HIBCC	\$\$+3	Expiration Date followed by Serial Number	Exp. Date: numeric [YYMMDD]	10	6
			Serial Number: alphanumeric	18	18
HIBCC	\$\$+4	Expiration Date followed by Serial Number	Exp. Date: numeric [YYMMDDHH]	12	8
			Serial Number: alphanumeric	18	18
HIBCC	\$\$+5	Expiration Date followed by Serial Number	Exp. Date: numeric [YYJJJ]	9	5
			Serial Number: alphanumeric	18	18
HIBCC	\$\$+6	Expiration Date followed by Serial Number	Exp. Date: numeric [YYJJJHH]	11	7
			Serial Number: alphanumeric	18	18
HIBCC	/S	Supplemental Serial Number, where lot number <u>also</u> required and included in main secondary data string	Alphanumeric	20	18
HIBCC	/16D	Manufacturing Date (supplemental to secondary barcode)	numeric [YYYYMMDD]	12	8
HIBCC	/14D	Expiration Date (supplemental to secondary barcode as optional format)	numeric [YYYYMMDD]	12	8
<i>HIBCC</i>		<i>Maximum Base UDI</i>	<i>Alphanumeric</i>	<i>70 to 87</i>	<i>58 to 75</i>
Ex of Human Readable Barcode: *+H123PARTNO1234567890120/\$\$420020216LOT123456789012345/SXYZ456789012345678/16D20130202C*					

HIBCC Sample UDI labels:

<http://www.hibcc.org/wp-content/uploads/2016/02/HIBCC-UDI-Label-Examples.pdf>

Appendix B: AIDC carriers most widely used in healthcare

HIBCC Standards

- Data Matrix with UDI-DI and UDI-PI's (Expiration Date + Lot/Batch Number)



+A999ABC123DE1/\$\$3221231LOT876S

- Code128 non-concatenated with UDI-DI and UDI-PI's (Expiration Date + Lot/Batch Number)



+A999ABC123DE1G *+\$3221231LOT876GT*

- QR-Code with UDI-DI and UDI-PI's (Expiration Date + Lot/Batch Number)



+A999ABC123DE1/\$\$3221231LOT876S

Appendix C: Examples of RFID carriers

HIBCC Standards

A HIBC UDI data string for the Barcode will be encoded with an RFID tag in a 1:1 relation; therefore scanning a Data Matrix with HIBC will yield the same result as scanning a RFID tag.

For RFID applications for UDI the appropriate standards for the product and packaging levels are

- ISO ISO 17367, Supply chain applications of RFID – Product tagging
- ISO ISO 17366, Supply chain applications of RFID – Product packaging

The AIDC and HRI formats are required under the UDI regulation. Therefore, the HRI is not required to be repeated for RFID again, if already present for another type of AIDC format. The ISO/IEC 29160 RFID Emblem is required to be shown as a visible indicator that an RFID is present by a generic RFID Emblem or optional by a RFID Emblem showing frequency and application by a two-character code. This optical visible indicator for frequency and application is helpful in areas where different RFID systems are in use and for diagnostic if a RFID Tag is not read.

The generic RFID Emblem according to ISO/IEC 29160 figure 2:


Fig. Generic RFID Emblem  ing “RFID inside”

Table A.1 (below) of ISO/IEC 29160 shows the appropriate RFID emblems for UDI, using a two-character code assignment.

Table A.1 — Two-character code assignments for the RFID Emblem (excerpt)

Emblem “B5”: 860-960 MHz (UHF) ISO/IEC 18000-63 ISO 17366 Product packaging

Fig. 1b) RFID Emblem “B5” 

Emblem “B7”: 860-960 MHz (UHF) ISO/IEC 18000-63 ISO 17367 Product tagging

Fig. 2) RFID Emblem “B7” 

Examples of serialized UDI HIBC to be encoded in Barcode and optional RFID
 a) on a product +A999ABC123DE0/\$(+1234567Y

b) on a package +A999ABC123DE1/\$(+1234567Y


 +A999ABC123DE1/\$(+1234567Z

Fig. 3) UDI applied on a product package with Data Matrix and RFID



+A999ABC123DE0/\$+1234567Y

Fig. 4) UDI applied on a product with Data Matrix and RFID

Note to Fig. 3 and 4: Human Readable Interpretation (HRI) contains the UDI data within an envelope of two Stars ()*