

Appendix A: UDI HRI Formats

IFA Standards

Issuing Agency/Entity	Data Element	HRI Qualifier	HRI Data Format	XML Node	AIDC Identifier	Data Type	AIDC Data Format	Data Field Size
IFA	UDI-DI	UDI-DI (PPN):	—	<UDI_DI_PPN>	9N	numeric	see PPN specification	4 – 22
IFA	Lot Number	 or ¹⁾ (1T):	—	<LOT>	1T	alphanumeric	—	1 – 20
IFA	Expiration Date	 or ¹⁾ (D):	[YYYY-MM-DD] or [YYYY-MM]	<EXP>	D	numeric	YYMMDD	6
IFA	Manufacturing Date	 or ¹⁾ (16D):	[YYYY-MM-DD] or [YYYY-MM]	<MFD>	16D	numeric	YYYYMMDD	8
IFA	Serial Number	 or ¹⁾ (S):	—	<SN>	S	alphanumeric	—	1 – 20
IFA	Basic UDI-DI	n.a.	n.a.	<B_UDI_DI>	n.a. (no element to the coding)	alphanumeric	see Appendix D	10 – 25

¹⁾ optionally for dedicated casesIFA Sample UDI label:

Appendix B: AIDC carriers most widely used in healthcare

IFA Standards

- **Symbology:**
Data Matrix Code ECC 200 in accordance with ISO/IEC 16022 or the expanded rectangular DMCs (DMRE) in accordance with ISO/IEC 21471 DMRE
- **Data Structure and Data identifiers:**
Structure in format 06 (ASC Format) according to ISO/IEC 15434 and Data Identifier (DI) according to ISO/IEC 15418 (ANSI MH10.8.2, Section I).
- **Examples:**

- UDI-DI: <PPN> and UDI-PI: <LOT> and <EXP>



(9N)111234567842(1T)ABC12345(D)241231

- UDI-DI: <PPN> and UDI-PI: <MFD>
additional (non-UDI) data element: <URL>



(9N)111234567842(D)240600(33L)<http://Produkthinweis.de>

- UDI-DI: <PPN> and UDI-PI: <SN> and <LOT> and <EXP>



(9N) 111234567842(S)JXCC263D0889(1T)170400XYZ(D)230617

- UDI-DI: <PPN> and UDI-PI: <MFD>
additional (non-UDI) data element: <Q>



(9N) 111234567842(16D) 20190725(Q)10

Appendix C: Examples of RFID carriers

IFA Standards

The IFA Coding System for data carriers in DMC format is ready to be used within RFID tags in a standard way.

International standard ISO17366.2 "Supply Chain Application for RFID - Product Tagging" supports the use of Data Identifier (DI). It may be used to present the IFA UDI data elements using six-bit encoding and the AFI 0xA1 (or 0xA7 for Hazardous Material).

Example UDI: (9N)1101234568(S)ABC123

Example RFID message: **9N**1101234568<GS>**S**ABC123

Note: the example data is encoded in the RFID tag memory using 6 bit encoding.

