

64-bit RFID

Thermal transfer printer for HF GenII transponder



Locating, tracing, securing, counting. Just imagine knowing the size, description, serial number and history of every single item that leaves your warehouse, without needing to have the actual item to hand. Imagine being able to call up information on manufacturer specifications, production site, sales channels and destination, simply and at any time.

We are not talking about an automated future; new RFID applications make this all possible - here and now.



RFID solutions by Avery Dennison

At **Avery Dennison** we combine our knowledge and experience gained from diverse research and development projects, to meet your requirements. On the basis of long-standing cooperation with leading chip manufacturers, as well as system and software suppliers, we have developed innovative and comprehensive RFID solutions - from the RFID printer right down to the revolutionary RFID label.

HF - features and applications

The HF transponder features a high data storage capacity which allows, for example, in the product's value chain, to add the complete history at each point of the production and handling flow directly on the label. It is applicable in processes with shorter reading distances.

RFID - HF kit for the whole 64-bit series

In RFID applications the direct thermal or thermal transfer printer equipped with a read/write module, is used to print a human readable label at the same time the data is stored to the RFID chip. In order to transfer the data to the chip, the 64-bit RFID printer is fitted with a standard HF 13,56 MHz read/write module, as well as a variable antenna. The positions of antenna and chip can be aligned easily. The components of the RFID kit are factory-fitted and can also be retrofitted to existing 64-bit printers. The kit goes with all printers of the 64-bit series - 4", 5", 6", 8".

Your 64-bit **RFID**-HF at a glance

Transponder specifications:	<p>HF Frequency range of 13.56 MHz, in accordance with ISO 15693</p> <ul style="list-style-type: none">■ Philips I•Code 1, I•Code SLI, I•Code EPC transponder■ Texas Instruments Tag-it HF-I (Tag-it ISO)■ Infineon my-d transponder <p>The data is saved on the transponders in the form of blocks of information, and the storage capacity ranges from 128 bits to 8192 bits.</p>
Material specifications:	<p>Material width: depending on the printer width up to 254 mm, min. 30 mm Position of the transponder: The adjustable RFID antenna can reach transponders across the entire width of the label. Material length: ≥ 60 mm Position of the transponder: The distance between the start of the label and the middle of the transponder must be ≥ 30 mm.</p>
Transponder function check:	<p>Before printing, the transponder is checked for correct operation. If it does not respond to the signals sent, a stripe is printed across the label and the printing continues with the next label. Printing is halted automatically if a specified number of transponders are found to be defective.</p>
Data verification:	<p>Automatic acknowledgement of successful data transfer at protocol level ensures a high level of data reliability. The success of the data transfer process can also be verified by an additional read step in which Easy Plug commands are used to read out the data after it has been written. The read/write speed can be up to 38,4 Kbit/s.</p>
Data security and handling:	<p>Blocks of data on the transponder can be selected and locked individually. This means that they cannot be changed or deleted.</p> <p>Simple commands can be used to print the saved data directly from the chip.</p>
Printer specifications:	<p>The 64-bit printers combine the outstanding features of its high-performance class and optimized printing of RFID labels.</p> <p>Based on a 64-bit CPU it ensures unbeatable print results with a print speed of up to 400 mm/s and a resolution of 300 dpi. Not only that, it is exceptionally reliable and economical. The standard Ethernet connection allows simple integration into existing data processing systems.</p> <p>To protect both, chip and print head, the printer menu includes a special parameter setting to define the position of the chip. The intelligent near-edge print head lifts at the defined position or automatically if it encounters print-free area of greater than 6 mm (if the layout of the label has been designed around the position of the transponder).</p>

Specifications are subject to change without prior notice (04/2004).