

64 - 05 RFID

Thermal transfer printer for UHF transponder



Find it. Track it. Secure it. Count it. Imagine knowing the size, brand, serial number and history of each item that leaves your warehouse — without seeing or handling it. Imagine having verification of original manufacturer, production facility, distribution route and destination. Imagine an inventory check every 30 seconds so that popular items are always available to customers. New RFID applications are emerging quickly as we work with customers to meet their needs in these and other efficiency enhancing applications.

- Logistics management / audit control
- Security / anti-theft
- Safety of product usage
- Health care information management
- Access management
- Product recall / returns
- Anti-counterfeit / anti-diversion
- Proof of ownership
- Enhanced shopping experience

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.

UHF frequency - revolutionary standards

The UHF standard opens new ways in RFID tracking and tracing. As only an EPC is stored to the chip, less data capacity is required. This EPC is a link to a database which contains the complete set of information. The speed of the data

reading process is increased - even from wide distances. These advantages make the UHF tag the most suitable solution for packaging labelling, answering the strong demand for more cost-efficiency.

The RFID - UHF kit

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 data to the chip, the 64-05 RFID printer is fitted with a UHF read/write module and an antenna. The components of the RFID kit are factory-fitted and can also be retrofitted to existing 64-05 printers.

Your 64-05 **RFID**-UHF at a glance

Transponder specifications:	<p>UHF frequency range meeting the 915 MHz standard</p> <ul style="list-style-type: none">■ supports Class 0 (Matrics) and Class 1 (Alien) EPC compliant tags■ UCODE EPC 1.19 (Philips)■ upgradeable to Class 0+ and UHF V2 foundation protocol <p>The data is saved on the transponders in form of information blocks, and the storage capacity ranges from 64 bits to 256 bits.</p>
Material specifications:	<p>Material width: 30 mm -154 mm</p> <p>Position of the transponder: The RFID antenna can reach transponders across the entire width of the label.</p> <p>Material length: \geq 60 mm</p> <p>Position of the transponder: The distance between the start of the label and the middle of the transponder must be \geq 30 mm.</p> <p>The best read/write results can be achieved using the largest possible antenna which makes use of the entire label area.</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 64 Kbit/s.</p>
Data security and handling:	<p>Blocks of data on the transponder can be selected and locked optionally. 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 64-05 RFID combines the outstanding features of the 64-bit printer family with 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).