

1. Introduction

In March 2004 MICROPLEX exhibited their first UHF RFID label printer at the CeBIT in Hanover. The new solution showed the value of RFID in the logistics sector “when-line-of-sight” is restricted but still the goods must be identified and controlled on the production or delivery lines.

It should not be seen as a replacement for the bar code but should be seen as a supplement to it. Even then it was clear that it was not possible to replace a barcode label 1:1 by a RFID label without providing an added value. Also the price difference focuses the use of UHF RFID at the pallet logistics area and the identification and management of high-quality or high value products.

When use in pallet logistics it is essential that there is a correct distance for reading the tags, then the flow of goods can be detected through fixed readers (Gates).

Today, more than 10 years later MICROPLEX has an RFID product line on the market that is perfect for these requirements. There are direct thermal and thermal transfer printers available for all formats from 4 inch to 8 inch print width that are equipped with a modern UHF RFID read/write unit.

To achieve the best possible result the antenna technology inside the printer has been optimally adjusted by MICROPLEX specifically to the particular circumstances required by the equipment and the solution.

2. Which UHF RFID standards are supported?

In all MICROPLEX UHF RFID printers, a RFID read/write unit with the following specifications is used:

- Integrated Multiprotocol-Reader 896,5 KHz
- USA (902 – 928 MHz) can be supported on request
- EPC Class 1 Gen 2, EPC 1.1.9 Philips, ISO 18000-6B/6C
- Write/Read/Verify (validate)
- For the most parts automatic calibration of the antenna position
- Supports all tag types with EPC and User Memory

2.1 Which print technologies are supported?

MICROPLEX Printers are available with thermal direct or thermal transfer and laser printing units. This covers a very wide range of possible applications.

- UHF RFID pallet labels
- UHF RFID Invoices
- UHF RFID Delivery notes
- UHF RFID Forms
- UHF RFID pallet labels from roll-to-roll
- UHF RFID labels <4 inches up to 6 inches,(A5) print width
- Different materials (paper, PE, PP, PET, PVC, tag stock, etc.)
- Laser printer quality on UHF RFID materials
- Free choice of various print materials from one printer

- And much more...

2.2 Which models are available?

MICROPLEX printer with direct thermal and thermal transfer technology support printing widths from 4 inches to 6 inches and antenna distances from 10mm.

Both from very small UHF RFID labels and labels up to 6 inch (A5) width can be processed. All MICROPLEX UHF RFID printers are robust, industry-standard devices with sturdy metal housings, which can withstand the highest through-put.

3. UHF RFID Printer

MICROPLEX offers RFID printing systems of Thermal direct and Thermal transfer printing.

LOGIJET T4-2 RFID



Thermal direct or Thermal transfer printer 4 inch width

- smallest Antenna gap: 10mm (depending on RFID-Inlay design)
- Measurement of Tag position: manually or automatically
- Delivery labels, Pallet label, Product identification, etc.

LOGIJET T6-2 RFID



Thermal direct or Thermal transfer printer 6 inch width

- smallest Antenna gap: 10mm (depending on RFID-Inlay design)
- Measurement of Tag position: manually or automatically
- Delivery labels A5, Pallet label A5, Product identification, etc.