

Legitronic® 8485Se-RFID – Specifications

Print method	Thermal-transfer / direct-thermal
Print resolution	8 dots/mm (203 dpi)
Label web + carrier	25 to 135 mm (label width 22 to 131 mm)
Print width	max. 128 mm
Label height	Apply mode: at least 15 mm
maximal printing length	stamped out labels Standard: 178 mm The dimensioning of the labels is not standardised at present.
Label roll	Outer diameter: up to 300 mm (approx. 450 running meters) Core: 40 to 45 mm (1,5", thermal core)
Label thickness	0,06 to 0,2 mm (50 to 180 g/m ²)
Label sensor	Adjustable: Photocell sensor for die-cutted labels and tags with photocell cut, Label gaps: 2 to 4 mm, 3 mm optimal Print mark: min. width 11 mm, height: 3 to 11 mm
Thermal-transfer foil	Laminated inside, max. 650 rms., 24,4 mm core, roll width: 25 to 131 mm
Printing speed	100 to 300 mm/sec.
Memory	16 MB SDRAM, 2,9 MB input buffer, 2 MB flash memory (reserved for firmware)
Data transfer	1 interface: ECP parallel (IEEE 1284) for printer and RFID reader
Barcodes	UPC A/E, EAN 8 & 13, Code 39, Code 93, Code 128, UCC/EAN 128, Interleaved 2 of 5, Industrial 2 of 5, Codabar, MSI, Bookland, Postnet 2-D codes: Data Matrix, Maxicode, PDF 417, QR-Code
Fonts	U, S, M, WB, WL, XU, XS, XM, XB, XL, OCR-A/B, Outline font (50 to 999) Font Triumvirate & Times 8 to 999 dots or 16 to 999 dots International symbol font acc. to Code page 850 Using the label print software Legi for Windows®, all True Type fonts installed in Windows® will be available.
Dimensions	302 x 265 x 417 mm (H x W x D)
Weight	11,5 kg
Electrical requirements	110/240 V +/-10%, 50/60 Hz, 50 W, max. 700 W
Environmental requirements	Operating: 5°C to 40°C, rel. humidity : 15% to 85%, non-condensing Storage: -20°C to 40°C, rel. humidity: 15% to 85%, non-condensing
Optional Features	Memory expansion: • Internal 4 MB flash memory SIMM card for text messages, graphics, layouts • External 4 MB S-RAM card or up to 16 MB flash card
RFID module	Frequency 902-928 MHz (100 KHz steps) – 869.525 MHz single frequency – 865-868 MHz (200 KHz steps) RF field strength 16 mW to 3 W – for 2,5 W ERP (4 W EIRP, FCC) for 500 mW ERP (800 mW, ETSI) – for 2 W ERP Electrical requirements 110/220 V, 50/60 Hz Dimensions 127 x 178 x 241 mm Weight 1,8 kg Environmental requirements -20°C to 70°C, rel. humidity: 5% to 95%, non-condensing



For a quick, dependable and faultless identification
RFID – Radio Frequency Identification



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RFID – Radio Frequency Identification

RFID provides a reliable, accurate and quick identification of products and transport packaging, even in rough environments.

The „core“ is the so-called transponder, a very small computer chip with an antenna.

This chip is storing a word-wide unique serial number – the EPC (Electronic Product Code).

In theory, it is also possible to think of applications storing more information, e. g. article- and serial number, durability or batch code, etc.

The reading process does not require intervisibility between the reader and the data medium; it is possible to store a large number of data media at the same time.

Label printer and applicator for RFID tags are fitted with a read/write unit for the transponder.

The data are being transferred from the computer to the label printer over the interface, then printed on the label, and at the same time, the transponder is being programmed.



Transponder data are being communicated over radio waves. Therefore, the transponders can be positioned at a hidden place, thus protected behind a transport label, or embedded inside the package or inside the material of the product to be identified.

How does the stock personnel know whether or not a logistic unit is being fitted with a transponder, and which technology is being used?

A look on the logo as recommended by the CCG will give the answer to this question which will be important for the handling of the product:



The EPC logo represents the Electronic Product Code (EPC) – thus, the world-wide product identification number which is included in the transponder.

At the same time, the EPC logo also represents the application of the technical EPC global specifications.

The other fields provide information about the type of EPC transponder being used, thus the class (e. g. C1 for class 1), the version (e. g. V2 for version 2) and the frequency (e. g. UHF).

So you can refer quickly and briefly to the complete transponder class concept of EPCglobal.

The CCG is recommending the logo to all of those people who want to use RFID systems on the basis of the EPCglobal standards.

It is a firstly national solution which has already been introduced with the international development committees.



Legi-Air 52xx-RFID

Automatic application of Smart labels with a RFID-compliant printer to be integrated into print + apply systems.

With the new SATO S-series, Weber is presenting the first print module RFID tags world-wide. For the first time, RFID tags – which are also called “smart tags” – can be used with automatic labelling systems.

The RFID print modules of the S-series do not only support any already existing RFID standards incl. the latest UHF-RFID standards, but due to their open design, they are also fitted for further standards which are already in a development phase.

The RFID read/write units are making use of a multi-frequency for ISO 18000-6A and –6B and EM Marin 4022 and 4222.

Thus, they are even today in compliance with the European UHF-RFID frequency of 868 MHz according to ETSI as well as the US American frequency band 902-928 mHz according to FCC.

The SATO RFID printer has a RF read/write unit. In one step, the printer is printing and programming your smart tag with the integrated transponder. The RFID printer prints graphics, text messages, barcodes onto the label surfaces, and it also reads and writes on a transponder being embedded in the label.

The most important details:

- A robust high-performance print module,
- right-hand and left-hand version,
- 230 dpi resolution,
- maximum print width of 128 mm,
- print speed max. 300 mm/sec.,
- applicator interface with real-time clock,
- 16 MB RAM (2,9 MB input buffer),
- ribbon-out sensor (connectable),
- service-friendly.

Firmware in the flash memory

The printer firmware can be updated via the interface. Thus, should you require a firmware update for your application, it can be downloaded from the internet or transferred from a disc.



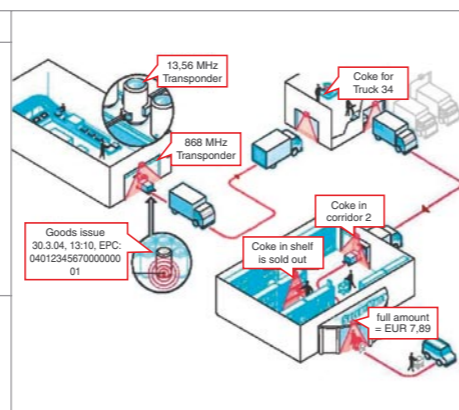
Bad Tag Reject Arm

The printed RFID tag is checked with regard to its readability. If it is readable, it will be applied onto the carton or the pallet.

In case of any error occurring, the “bad tag reject arm” will be pending between tamp pad and product and therefore, the application of the faulty RFID tag is avoided. Thus, a 100% quality control is ensured.

Potentials arising from process optimisation

Applications	Possible benefits	Effect
• Tracking	• Reduction of thefts	Cost reduction
• Routing	• Reduction of staffing costs	
• Movement of goods	• Reduction of inventory costs	
• Controls	• Reduction of stocks	
• Inventory processes	• Improved utilisation of discounts	
• Receiving of goods	• Reduced delivery times	
• Processing of tills	• Higher stock turn	
• Processing returns	• Higher accuracy	Increased sales
• Anti-theft devices	• Avoidance of out of stock situations	
• Control of marketing	• Reduction of write-offs	
• Additional information	• Customer loyalty • More flexible range of goods	



EPC – Barcode for the RFID tag

EPC specification V 1.1

EPC is a new system linking items with compliant information along the supply chain by enabling access to these data via internet.

- Electronic Product Code (EPC) – accurate object identification number, stored on a transponder.
- RFID reader – asks transponder for EPC and transfers it to the reference software.

- Reference software – Processes, filters out and transfers data from the reader to application systems.

According to the current concept, the data are being transferred from the reader to the application software in compliance with EAN128.

Transformation barcode in EPC (check digits are not required).

	Header	Filter Value	Partition	Company Prefix	Item Reference	Serial Number
EPC-NVE-96	8 bits	3 bits	3 bits	20-40 bits		37-17 bits
SGTIN-96	8 bits	3 bits	3 bits	20-40 bits	24-4 bits	38 bits