

## ISM 1100

The ISM1100 intelligent automatic warehouse has been specifically designed and made to achieve an optimum performance as regards storage capacity and total size. With a maximum total capacity of 1100 reels, the ISM1100 is the optimum solution for those who needs to speed up warehouse management times in a small space. Reels with dimensions 7", from 8mm to 16mm in height, can be stored in the automatic warehouse. The patented multiple outlet allows the simultaneous extraction and insertion of up to 27 reels at once. It also has a rapid outlet allowing the extraction of a single reel in record time. With the humidity control module, it is possible to adjust and monitor humidity, to maintain an internal environment below 5% RH. In this way it will be possible to store all sensitive components correctly and, thanks to the software interface, the Life of each component can be monitored in terms of humidity. In fact, the system will trace all the movements of the component and automatically calculate the exposure time beyond the limits, notifying the operator and blocking the component if the maximum limit is exceeded. Moreover it is possible to view and print the exploded view of the life of a component.

VERSION	7" H=8mm	7" H=up to 16mm
ISM 1100 - Standard	988	112
ISM 1100 - Balanced	501	417
ISM 1100 - H12/16		768

TECHNICAL DATA	
Dimensions:	Width: 1,735 m/ 5,69 ft Depth: 0,920 m/ 3,01 ft
Min Height (For transport):	2,15 m
Operative Height:	2,20 m adjustable up until 2,26 m
Weight:	460kg(empty), 600kg (full cases)
Power supply:	110V - 230V; 50/60Hz
Power consumption:	* average 0,2 KWh - max. 0,4 KWh * average 0,4 KWh - max. 1,5 KWh with 8 Humidity Control Units
Air supply:	6bar - 85 psi
Air consumption:	Not needed
Operating system:	Microsoft Win 7 / Win 8 / Win 10; Microsoft Win Server 2008 / 2012
Humidity control:	up to 3 dehumifiers
Other accessories:	Lcd, keyboard, Trackball



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# ISM1100

- Ready for INDUSTRY 4.0
- Integration ready for ERP - MES - P&P



Production Empowerment



Time saving



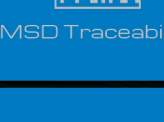
Space saving



RH Control



MSD Traceability



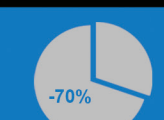
ROI



Increase P&P lines production  
P&P set up preparation time saving



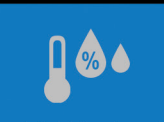
Operators time saving



Space saving



Avoid human mistake



MSD controlled environment (RH<5%)



Complete stock control



Money Saving (fast R.O.I.)





## Hardware Options for ISM1100

HARDWARE AND SOFTWARE	Included by default	HARDWARE OPTIONS	On request
1D manual barcode scanner	✓	Humidity Control - 3 dehumifiers	✓
Standard PC	✓	Fast recovery Unit	✓
Full Cases	✓	ESD setup	✓
Software CONSOLE	✓	Precision Camera Reader 5MP	✓
		Precision Camera Reader 13MP	✓
		Extra ESD 7/15" cases	✓
		Extra 7/15" cases	✓
		(PDA)Mobile computer with 1D, 2D (datamatrix) scanner	N.A
		1D/2D manual barcode scanner	✓
		2D Wireless manual barcode scanner	✓
		Server PC	✓
		External backup Hard Disk	✓
		External Camera Station	✓
		Barcode Label Printer	✓

## Hardware Options Details

### Humidity Control Module

With the Humidity Control Module, it is possible to adjust and monitor humidity, to maintain an internal environment below 5% RH. This way it will be possible to store properly all sensitive components. Thanks to the software interface, the humidity floor life of each component can be monitored in terms of humidity (RH<5%. Software unit to control MSL life of every component managed inside the ISM systems, 8 dehumidifiers, 4 sensors: internal/external RH and internal/external temperature, Display to show internal/external RH and temperature).

### ESD Setup

Areas finished with anti static paint. ESD certified cases.

### FRU - Fast Recovery Unit

The Fast Recovery Unit takes humidity down to optimal levels in a very short time even after longer periods with the doors open.

### Server PC

It is the PC where to install the SERVER software. Separate SERVER PC shall be used to install SERVER software when customer has more than 10.000 unique ID inside his database. Specs: CPU Intel i7, 16GB RAM, 256GB SSD RAID HARD DISK.(monitor not included)

### Standard PC

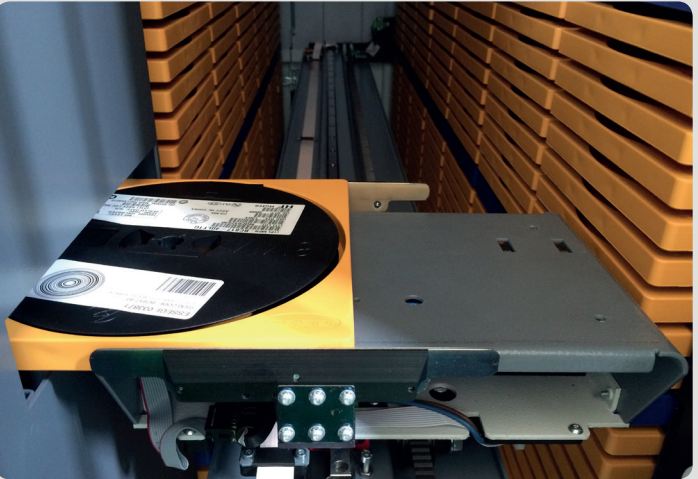
It is the PC where SERVER software and/or CONSOLE software can be installed when less than 10.000 unique ID are inside his database. Specs: CPU Intel i3, 4GB RAM, 60GB SSD HARD DISK.(monitor not included)

### External Camera Station

This option allows to take pictures, from a camera station that can be placed over a table. All pictures will be saved inside the DB in order to be able to visualize the picture of the reel easily. (very useful for any complain with supplier).

### Precision Camera Reader 5 or 13MP

This camera allows the automatic identification of cases height. - allows the insertions of cases of different heights. - reads 2D (datamatrix) barcodes and is able to give omnidirectional reading of the standard 1D barcodes (for this last possibility check specifications before). Through this camera the system will handle the Reels Pictures Traceability Option.



## Software Options for ISM1100

SOFTWARE OPTIONS	On request
SMT Lite Software	✓
SMT Software SERVER	✓
THT Software SERVER	✓
SMT Dynamic External Storage Module	✓
THT Dynamic External Storage Module	✓
PDA Stock Management Software	✓
PDA Pick & Place extraction Management Software	✓
LED Binning Management Option	✓
SMT/THT Static External Storage Option	✓
Reels Pictures Traceability Option	✓
API+ERP/P&P software Interfacing Option	✓
Join Button Option	✓
Feeder Management Option	✓

The SMT lite software or SMT Software server and THT software server are one time purchases. Each can handle multiple machines.

Items marked with this symbol are essential for the functioning of the system, therefore they should be added to the configuration as specified in the notes.

## Software Options Details

### SMT LITE Software

The SMT Lite software allows to control reel ID and component codes. Extraction of material will be done by selecting manually the codes to extract, by importing an existing .csv list or by scanning a list of barcodes. It has an easy and user friendly interface.

### SMT Software SERVER

The SMT software SERVER is the software that allows the dynamic control and the management of SMD. This software uses a dedicated logic to manage SMD material. This software is needed to manage one more ISM systems. It can be installed inside the Customer Server, inside an external PC or inside the PC of one ISM system (last case with a maximum of 3 ISM installed or when the customer has less than 10.000 unique ID inside his database).

### THT Software SERVER

The THT software SERVER is the software that allows the control and the management of THT components/material. This software use a dedicated logic to manage THT material. It can be installed inside the Customer Server, inside an external PC or inside the PC of one ISM system (last case with a maximum of 3 ISM installed)

### Software CONSOLE

The Software Console is the interface between operators and software SERVER. If the Customer needs to have some other places where he want to check, manage and control the stock it's possible to order one software Console for each needed position.

### SMT Dynamic External Storage Module

It is the software that allows the control and the management of SMT material that can not be fitted inside ISM systems or that are allocated in some external positions. This software will control in a dynamic logic the external shelves or any other external position. It shall be installed together with SMT software SERVER. The SMT Dynamic External Storage Module works together with a PDA mobile to guide the operator in managing and controlling the material.

### THT Dynamic External Storage Module

It is the software that allows the control and the management of external stock. This software will control in a dynamic logic the external shelves or any other external position. It shall be installed together with the THT software. The SMT Dynamic External Storage Module software works together with a PDA to guide the operator in managing and controlling the material.

### LED Binning Management Option

This option allows to calculate automatically the number of PCBs that is possible to produce, in relation to the LEDs and resistors that are physically available in stock. It will allow to divide the production in different set-ups, depending on the number of PCBs that is possible to produce with

the correct BIN/resistors setting.

### SMT/THT Static External Storage Option

This option allows to set material in any external position. Stagesolutions software will know and will indicate to the operator the position of this material, but the picking will be done by following a standard paper list like any other standard kitting procedure.

### Reels Pictures Traceability Option

This option allows to take a picture of each reel inserted and managed by Stagesolutions systems. All pictures will be saved inside the DB and it will be possible to visualize the pictures of the reel easily (very useful for any complaint with supplier). Pictures will be shot automatically from the ISM internal cameras (if installed), or from an External Camera Station.

### API + ERP / P&P software Interfacing Option

Automatic import of items; automatic import of reels; automatic import of boards; automatic import sessions; automatic import of file on commit; export sessions; export modified reels; export on commit.

### Join Button Option

The JoinButton gives the possibility to join two work sessions together even if production has already started. This allows the customer to add a new product/s to an existing multi-job without having to recalculate all common reels needed for the new job.

### Feeder Management Option

This option helps to manage feeder positions and feeder types. You will have indication not only in which line the reels are, but the exact position in the P&P.

### PDA Stock Management Software

It is the software used to control Stagesolutions Dynamic External Storage Module through a PDA. PDA specs: Win Mobile 6.5 or higher; win CE 5.0 or higher; min. resolutions display 240x320.

### PDA Pick & Place extraction Management Software

This software allows to make the extraction of the assigned stock material directly from the P&P lines. In this way all spare reels can remain inside the ISM systems until the operator will need them. This is a big advantage in case of moisture sensitive components, as it will avoid to have a lot of spare reels closed to the production lines and reduce the possibility of mixing up of the codes from the operators.

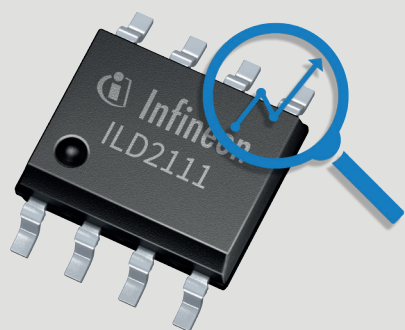
## ISM Software

The ISM software springs from direct needs emerged in more than 18 years working in the electronics industry. Thanks to a close collaboration with the most diverse realities in the electronic field and to four years of development, the ISM Software can meet the needs of the electronic production at 360°.

The quantity control, component traceability, automatic extraction depending on the job order, the automatic calculation of the components used and their inventories, or others, are just some of the features of this software especially designed for electronic components warehouse management of electronic components.

### Life cycle reel management: incoming, tracing and updating

The software monitors the life cycle of each single reel / tube or other format, from incoming until it is exhausted, by constantly updating its position at each loading or unloading and the quantity of components still present after each production.



### Stock analysis for purchases planning

The software stores the components necessary to produce a variety of boards. With this information the user can easily insert the number of boards to be produced and check whether in the stock is available the sufficient amount of components to complete the production or not. Otherwise, the software processes the list of missing components for the purchasing department.

### Warehouse analysis for production planning

The software is able to analyze the availability of components for more productions at the same time, verifying the feasibility also based on the sequence of estimated launch.

### Flexible set of logical tracking, analysis and extraction

The system is capable to use both linear bar codes and 2D (Data Matrix) according to customer's specification. For example it is possible to design tailed 1D and 2D labels, set the system to extract multiple reels of the same component to speed up pick & place production or prioritize the extractions using FIFO or based on the shelf-life of the reel.

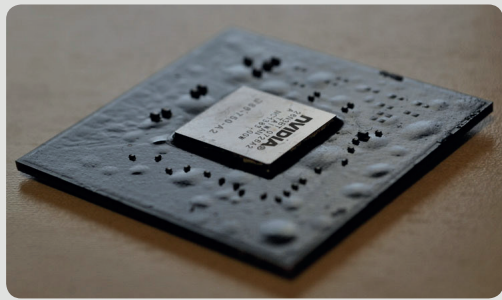


### Humidity monitoring and SMD components management

If at least one of the purchased warehouses is equipped with Humidity Control Unit, the

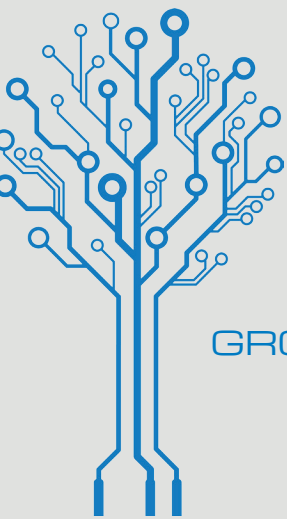
software will track for each reel the humidity levels to which it is exposed and for how long, indicating in the analysis the components in stock that have exceeded the level of exposure allowed.

In the case of mixed systems, sensitive components can be set to be stored only in machines with humidity control.



### Other Software Features

- SMT stock management
- THT stock management
- External storage management
- Mobile Software
- PDA Mobile Software
- **NEW:** Led Binning Management
- **NEW:** External storage management
- **NEW:** Reels Pictures Traceability
- Software unit for automatic extraction from Pick and Place
- API ERP/P&P software interfacing module
- Feeder management
- F.I.F.O logic



GROWING  
SOFTWARE

MAKE IT SMART  
SPEED UP YOUR PRODUCTION



# LOAD AND GO!

Simple concept, isn't it?

As simple as the reasons why you should buy ISM

3622 reels in only 3m<sup>2</sup>



1100 reels in only 1.3m<sup>2</sup>

2059 reels in only 3m<sup>2</sup>

1 THE FASTEST MATERIAL MANAGEMENT SYSTEM IN THE MARKET

2 27 REELS = 20 SECONDS OPERATOR TIME

3 READY FOR INDUSTRY 4.0

4 INTEGRATION READY FOR ERP - MES - P&P