

# <u>User's instructions to use the</u> RFID reader system for Material Cabinet ASY-18130.

1-"Contains FCC ID: YH6- DUPCAB1".

#### 2- FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Stratasys Ltd. is not responsible for any radio or communication interference caused by using other than specified or recommended cables and battery or by unauthorized changes or modifications to this equipment. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation.

#### 3- Use conditions

The RFID reader is to be incorporated in the Material cabinet (Host) by the Grantee and is not for sale to any other third parties.

#### 4-Limited module procedures

4.1- the modular transmitter doesn't have its own RF shielding

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- 4.2- The module transmitter has RFID transmission protocols
- 4.3- The RFID unit voltage is 5V (produced from the main 24VDC).
- 4.4- The module transmitter has a Loop coil antenna mfr. Stratasys model. BRD-03012
- 4.5- The modular transmitter has been tested inside an auxiliary device therefore it is matching module limited approval
- 4.6- The modular transmitter is labeled with FCC ID and as it is not visible to the user, there is an exterior label including "Contains FCC ID: YH6- DUPCAB1"
- 4.7- The module transmitter complies with any applicable Rf exposure requirements
- 4.8- The module transmitter complies to para. 15 part 15.207 and 15.209
- 4.9- The module is completely tuned and tested before shipment to the factory. There the board where the module is located is screwed in place to the internal front part of the housing of the host and connected to the host main board for input voltage by a wires harness.
- 5- The RFID module transmitter has an integrated antenna printed on the PCB 16 Antennas (4 antennas connected to each MSC board).

The antenna is part of the printed traces in the PCB Gerber files.

The module does not have a tune-up procedure and all tune-ups are controlled at the factory. The product is completely tuned and tested before shipment.

- 6- The module installed inside the host device is designed to be used so that the radiating structure of the device may be used at any distance from the body of the user.
- 7- The antenna is printed on the PCB- see para.5 above.
- 8- The following label shall be attached to the outer surface of the Host:

"Contains FCC ID: YH6- DUPCAB1"

9-Operation system Modes

Product's main functions are read and write data from material container protected by RFID identification tags Stratasys Ltd.

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attached to the resin material container. Its intended use is to identify the type of resin.

10- The modular transmitter is ONLY FCC authorized for the rules as listed on the Grant.

If other FCC rules apply to the host and are not covered by the modular grant, these are the host manufacturer responsibility.

## 11- Operation

The PC sends command states to the MSC2 board to identify the transponders (check for cartridge presence) – than the reader creates electromagnetic field emitting thru the antenna. When placing the cartridge, the transponder comes near the antenna at a distance which is sufficient to make a reaction at the transponder, a voltage generates at the transponder coil. The antenna gets the ID and/or data from the transponder according to the reader command. If the system identifies the transponder's encryption it sends the transponder's data to the printer software for authentication. The same way the reader can write to the transponder memory including verification process.

## 12- OEM INTEGRATION INSTRUCTIONS

This module is intended only for Stratasys's devices under the following conditions:

The module is installed in the host equipment such that ASY-18130. The module shall be only used with the internal on-board antenna that has been originally tested and certified with this module. External antennas are not supported. As long as these 3 conditions above are met, further transmitter test will not be required.

Stratasys is responsible for testing the end-product for any additional compliance requirements required with this module installed.