

Document writing

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Document update

Version	Date	Changes
V1.0	28/03/2019	Initial version
V1.1	27/08/2019	Add SST-A120 and SST-A180
V1.2	20/09/2019	Add consumption
V1.3	04/10/2019	Delete boards informations on page 3.

Document validation

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Document distribution

Nom :

Comments

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The purpose of this document is to explain the SST-A product and its range. This document also presents the most critical SST-A device for radio regulations.

1. SST-A product description

The Smart Storage Agitator Device (SST-A) is an accessory of platelets agitator. The intended use is traceability for tracking Platelet Concentrate units (PC) inside a platelets agitator (e.g. motion, new entry, exit etc...)

The SST-A drawers are included in a specific and compatible blood bank agitator. Users are people working in hospital or in blood bank/blood center.

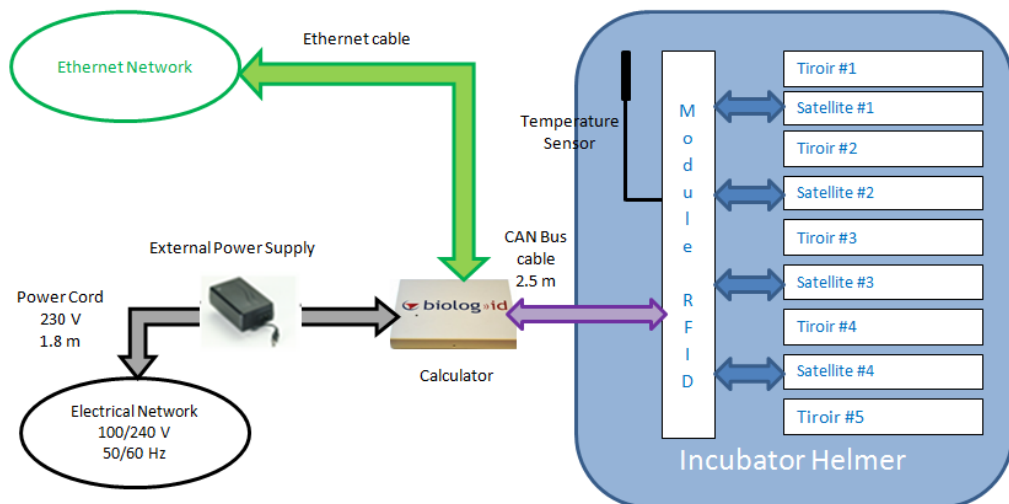
The system allows tracking each motion of PC units (entry/exit) equipped with RFID tags.

The system should be connected to standalone software in order to exchange data or to write information in the memory of the tag.

The SST-A device is based on three mains modules:

- Mechanical drawers, structure supporting drawers, antennas and embedded electronic (for RFID).
- Main computer board with embedded software to pilot RFID and to communicate with standalone software if such system is used.

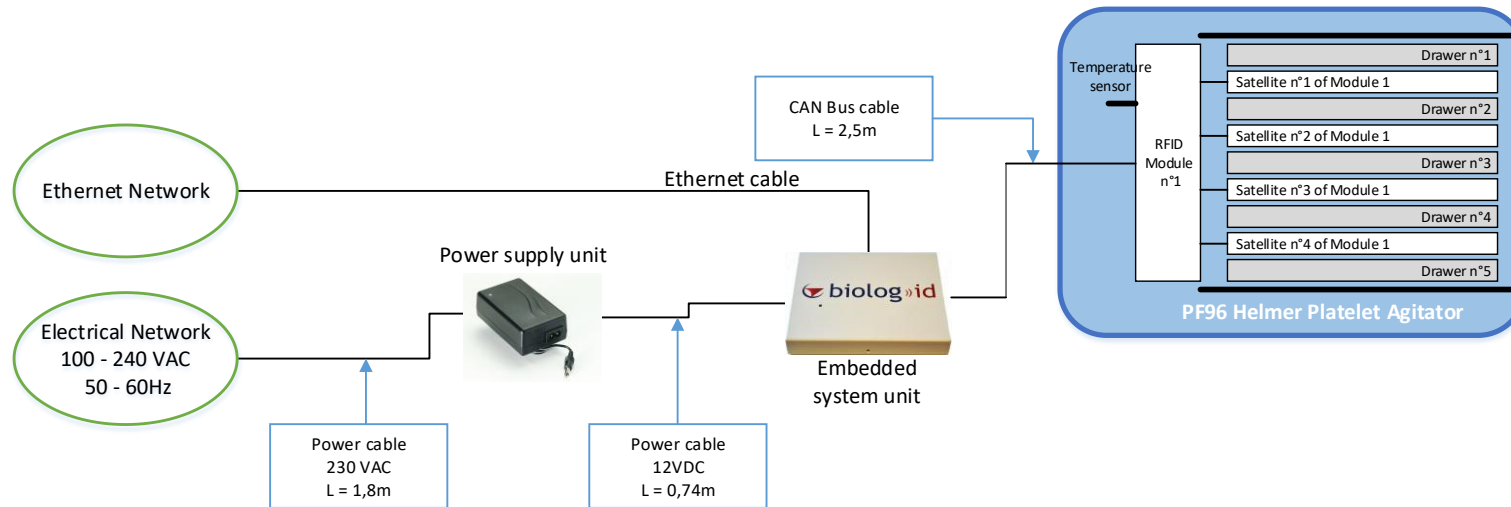
For RFID functionalities, Frequency is 13,56 MHz (High Frequency) in compliance with the ISO 15693 standard.



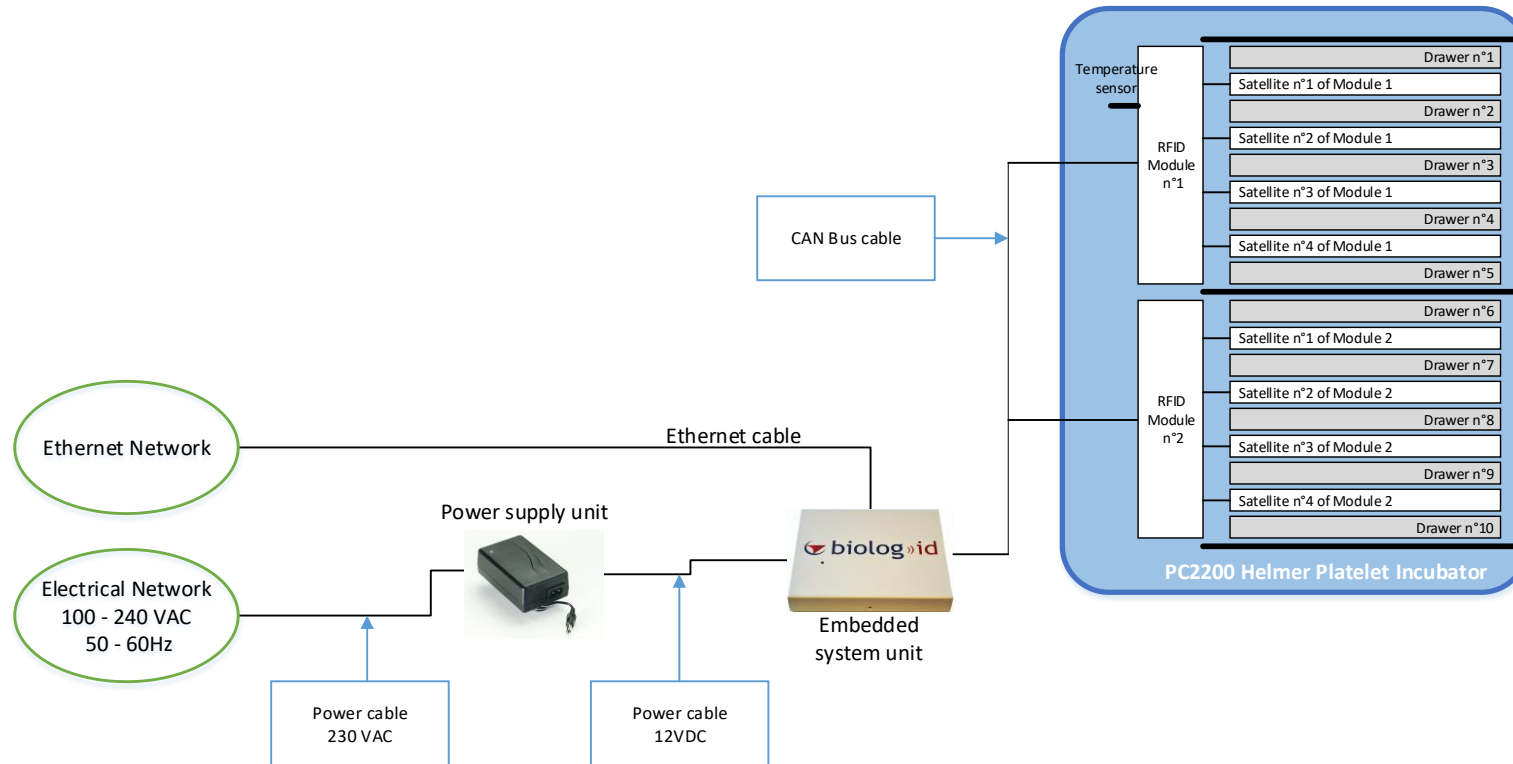
2. SST-A Product Family

Trade name	SST-A60	SST-A120	SST-A180	SST-A240
Product Reference	PRD_7150300A	PRD_7150500A	PRD_7150600A	PRD_7150400A
Associated HELMER Agitator	Helmer PF96	Helmer PC2200	Helmer PC3200	Helmer PC4200
Storage capacity	60 bags (5 drawers of 12 bags)	120 bags (10 drawers of 12 bags)	180 bags (15 drawers of 12 bags)	240 bags (20 drawers of 12 bags)
Number of RFID antennas	32 antennas (8 antennas x 4 satellites)	64 antennas (8 antennas x 8 satellites)	96 antennas (8 antennas x 12 satellites)	128 antennas (8 antennas x 16 satellites)
Number of satellite	4	8	12	16
Number of RFID module	1	2	3	4
Number of calculator	1	1	1	1
Power (VA) @240VAC/50Hz	16.8 VA	17.6 VA	18.4 VA	19 VA
Dimensions	793 x 383 x 276 mm	793 x 383 x 610 mm	793 x 383 x 915 mm	793 x 383 x 1220 mm
Weight	25 Kg	50 Kg	75 Kg	100 Kg

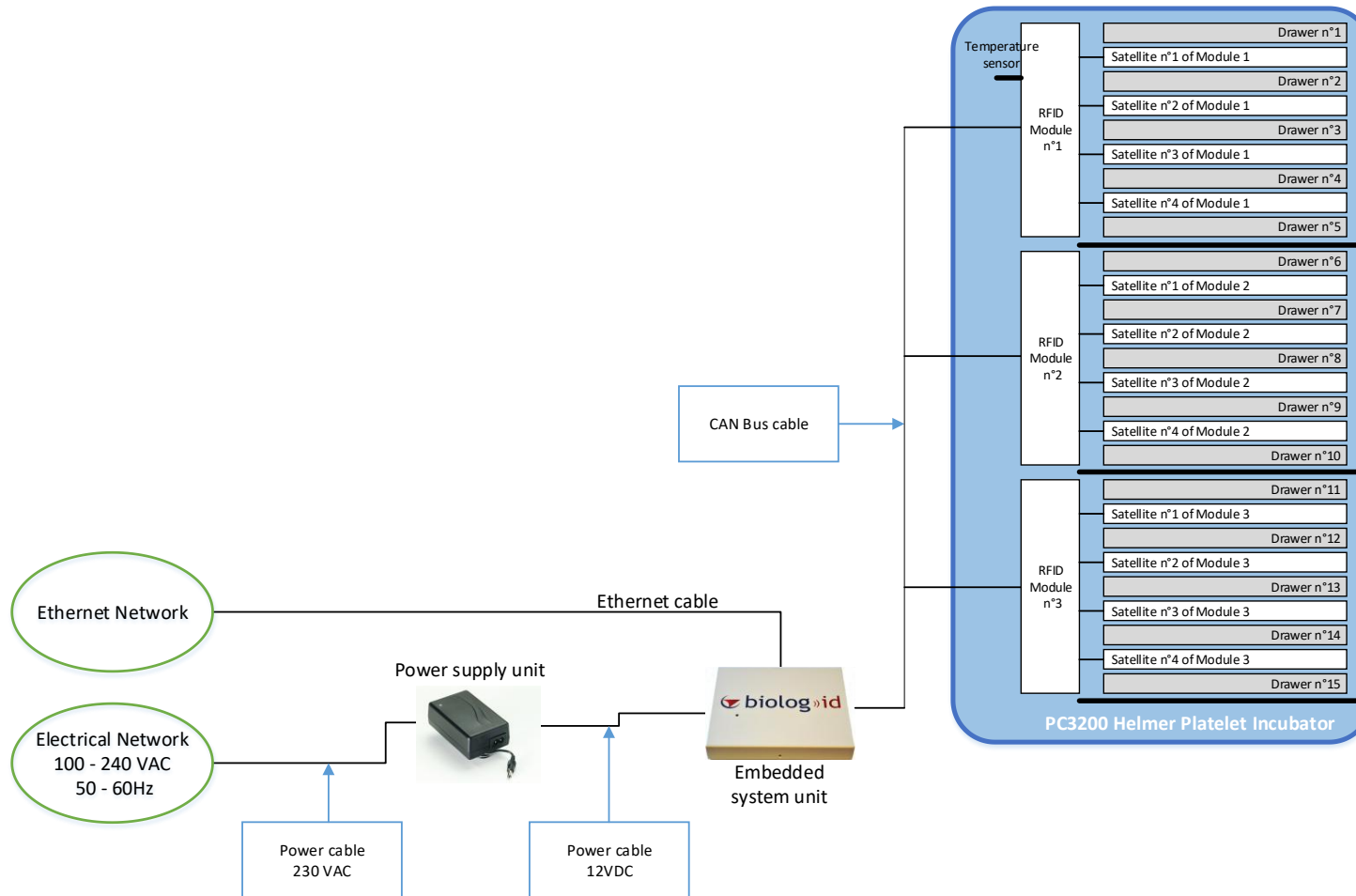
3. SST-A60 block diagram



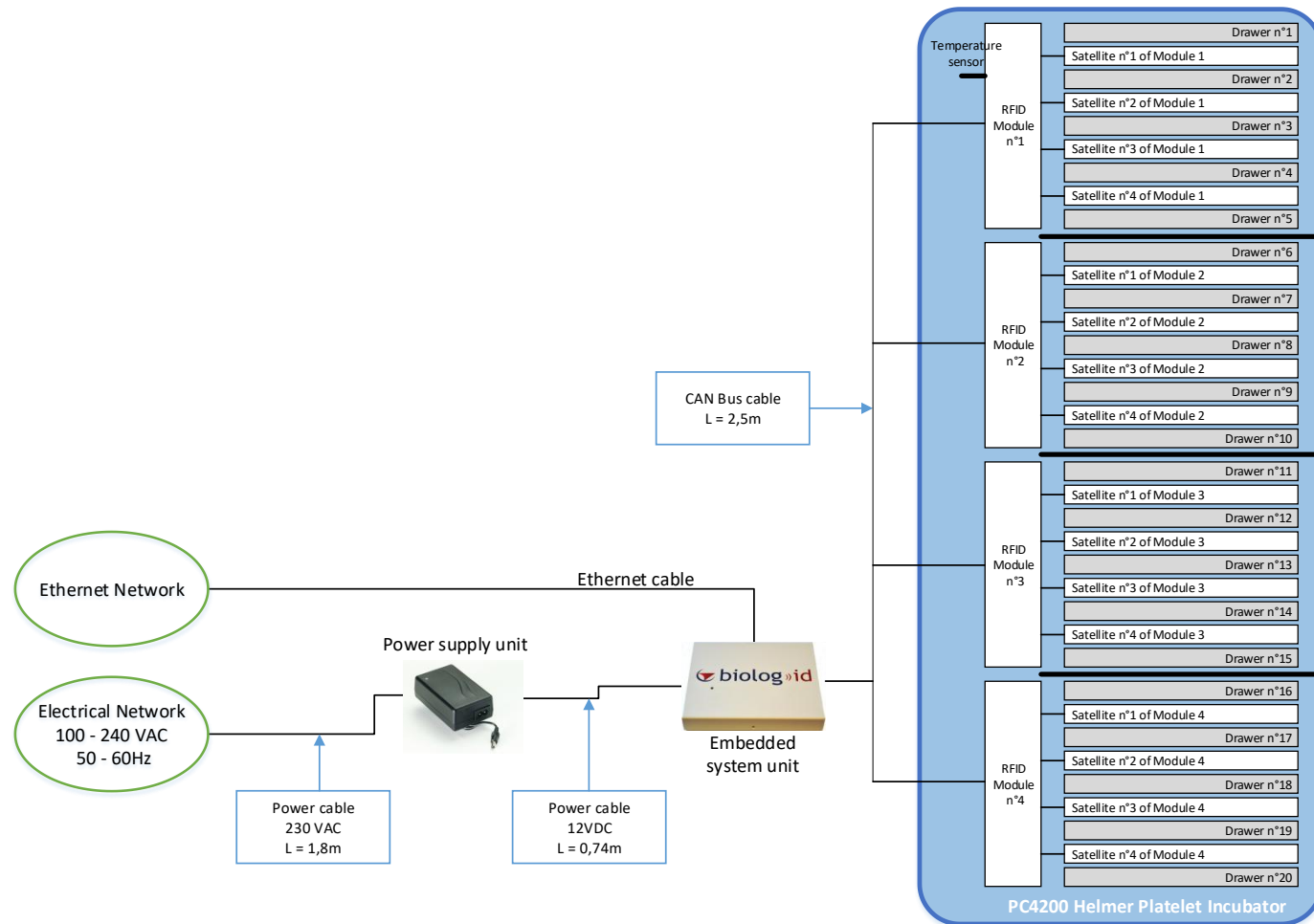
4. SST-A120 block diagram



5. SST-A180 block diagram



6. SST-A240 block diagram



7. Conclusion

The four products used the same electronics boards:

- CAR_71503A and CAR_71504A for RFID antennas.
- CAR_71502A for RFID module.

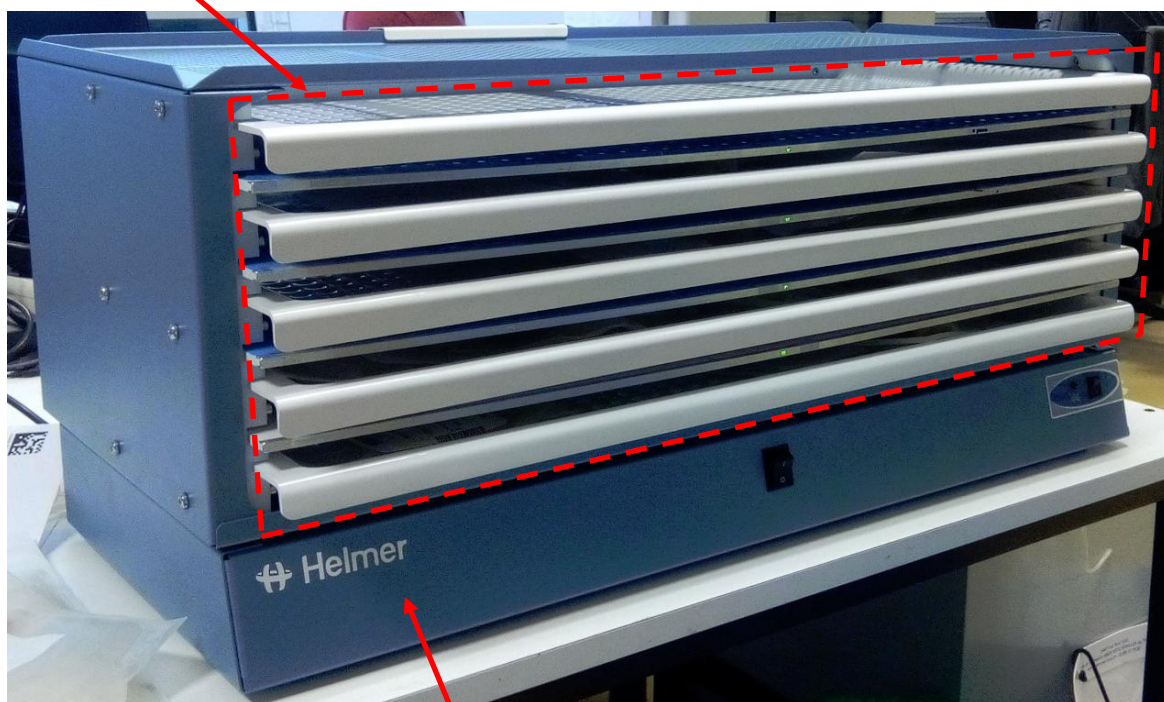
The calculator and the power supply are the same.

Parameters with the biggest radio effect are the number of boards with RFID components and the number of antennas. Thus, the SST-A240, ref PRD_7150400A (the biggest one) is the “worst case” SST-A kit regarding radio regulations.

For the Safety, the SST-A240 is the “worst case” because it has the biggest consumption.

8. Photos

PRD_7150300A:



In normal use, this ELMER agitator PF96 is placed inside an ELMER incubator. The agitator and incubator functions are performed by 2 ELMER products.

PRD_7150400A:





In this product, the agitator and incubator functions are in a single ELMER product (PC4200).