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PJM RFID
OPEN SHELVING

The only RFID technology you don't have to work around

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PJM RFID OPEN SHELVING DATA SHEET

The RFID open shelving system has been designed to fit any client's storage requirements, with customisable shelving heights. The PJM RFID shelving provides a full 3D reading capability resulting in unparalleled performance & ease of use. There are no process changes required for medical staff as there is no need for any special handling procedures or placement of blood/plasma bags on the shelving system. The RFID shelves are completely orientation insensitive and capable of reading deeply stacked PJM RFID tagged blood or plasma bags in any position with 100% accuracy, a feature that is unique to PJM RFID. The RFID shelf enclosures are constructed from food grade polycarbonate and are completely flat with no moving parts making them extremely easy to clean as well as providing access from all sides of the shelves. The PJM RFID Open Shelving System allows users to perform immediate 100% accurate stock takes of their critical supplies in seconds, either locally or remotely. Additional business rules can then be developed in the client application to create any required functionality such as:

- Auditable cold chain record
- FEFO Management
- Setting automatic minimum stock level warnings and/or automatically triggered reordering
- Reserving specific units for patients with warnings triggered should the incorrect unit be removed
- Warnings to alert if units are getting close to the out of cold storage time limit
- Immediate network wide searches for available urgent blood products

PJM RFID technology conforms to ISO 18000-3 Mode 2 and is completely safe to use with all biological agents and materials; it operates in the 13.56MHz frequency range which is the International Society of Blood Transfusion (ISBT) recommended frequency for use in blood banking and transfusion medicine.

ELECTRICAL	
Operating Frequency	13.56 MHz
ISO/IEC Compliance	18000-3 Mode 2
Command Data Rate	424 kbit/s
Reply Data Rate per Channel	106 kbit/s
Number of Axis	3
Power Supply	15VDC
DC Power Supply Connector	2.5 mm DC centre pin positive
Mains Input	110 - 240 VAC @ 50/60 Hz
Mains Connector	IEC 320/C14 connector
Power Consumption	60W
PERFORMANCE	
RFID field	3D
Operating Range	Shelf surface
Identification rate with 100% accuracy	Up to 150 tags/s
Identify & read 96 bits of data with 100% accuracy	Up to 100 tags/s
Identify, write & read 96 bits of data with 100% accuracy	Up to 50 tags/s
HOST	
Host Interface	USB or Ethernet (Ethernet must be shielded (CAT 5/6
Host OS	Windows 10 or later
ENVIRONMENT	
Operation environment	Indoor use
Temperature Range	-40°C to +40°C

- ✓ Performs read and write operations
- ✓ No manual antenna calibration needed
- ✓ Automatic antenna tuning
- ✓ Can be placed in close proximity to one another
- ✓ RFID field unaffected by liquids
- ✓ 100% safe to use with biological material
- ✓ RFID tags can be presented in any orientation
- ✓ 100% safe to use in medical applications
- ✓ ISBT recommended frequency for blood banking and transfusion medicine
- ✓ Mobile option

CERTIFICATIONS	
Singapore	Registration number: N0440-20
Australia	AS/NZS CISPR32 (2015), AS/NZS 4268(2017), RPS3(ARPANSA), RCM
Europe (CE Mark)	EN 300 330-1 v2.1.1, EN 301 489-1 v2.2.3, EN 301 489-3 v2.1.1, EN 61000-3-2 (2006), EN 61000-3-3 (2008), EN 61000-4-2, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11, EN 62749 (2010), EN 62368-1:2020 + A11:2022
MECHANICAL	
Operating Frequency	150kg per tier (Evenly distributed)
Post material	Stainless Steel (Customisable height)
RFID shelves	Food grade polycarbonate
Shelf clips	Food grade polypropylene
Feet	Adjustable nylon
Wheels	Optional wheels available
Sizes (W x D x H)	1350mm x 600mm x 1970mm