Technology Solutions for Retail

RFID Tunnel

TP2



A UHF RFID conveyor reader developed to automate product identification and counting. It combines RFID technology with mechanical design, automation, multiple sensors and electromagnetic shielding to reduce errors and improve efficiency compared with manual counting.

During operation, the system generates a real-time list on the screen, lets staff verify the data and issues alerts to make supervision easier. This helps reduce labor costs and increase operational efficiency.

GL Retail & Investments LLC
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
Phone: +1 (786) 537-3615
david@glretail.us
glretail.us

Features

- **High identification speed:** identifies more than 400 items in under 3 seconds and generates the list in real time.
- **Motion control and specialized mechanical design:** helps reduce missed tag reads.
- **Electromagnetic shielding and RF optimization:** designed to improve read accuracy.
- **Centralized control:** the industrial PC controls the equipment's functions and monitors the status of its components.
- **Manual control:** external mechanical buttons for easy operation.
- **Industrial plastic mesh conveyor belt:** designed to reduce conveyor structure shifting.
- **Side maintenance doors:** make inspection and maintenance easier.
- **Optional sorting modules:** expand the system to fit different needs.
- **High inventory efficiency:** according to the manufacturer, the conveyor system can cut a 5–10 minute manual count to about 3–5 seconds.

Technical Specifications

Performance	
Operating system	Windows (Android optional)
Industrial PC	Intel i5, 4 GB + 128 GB / RK3399, 4 GB + 16 GB
Identification technology	RFID (UHF)
Read speed	100 units/s
Conveyor speed	20 m/min (default), adjustable up to 30 m/min
Maximum load	80 kg
Read speed	6–10 boxes/min
Conveyor belt	3 independent sections
Door opening speed	1,2 s

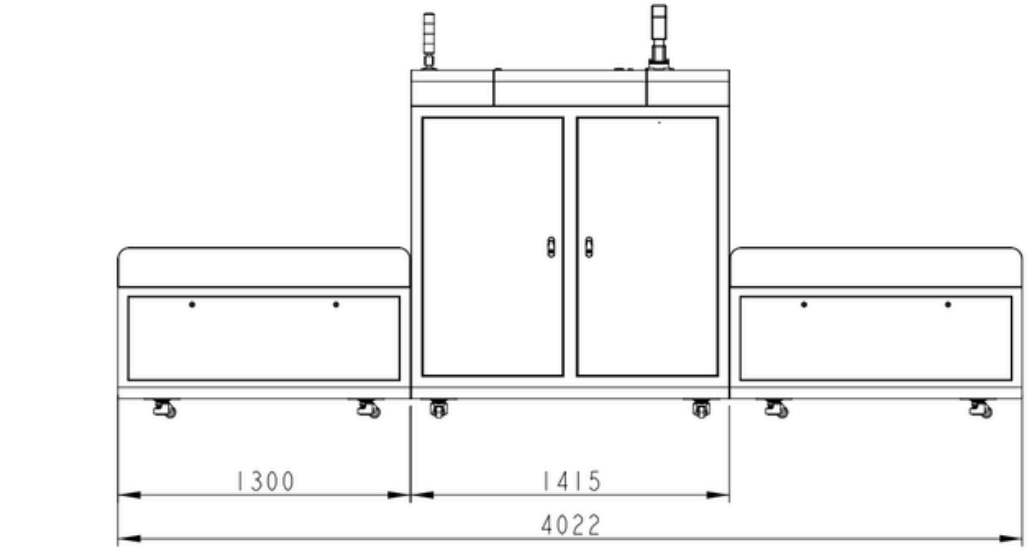
GL Retail & Investments LLC
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
Phone: +1 (786) 537-3615
david@glretail.us
glretail.us

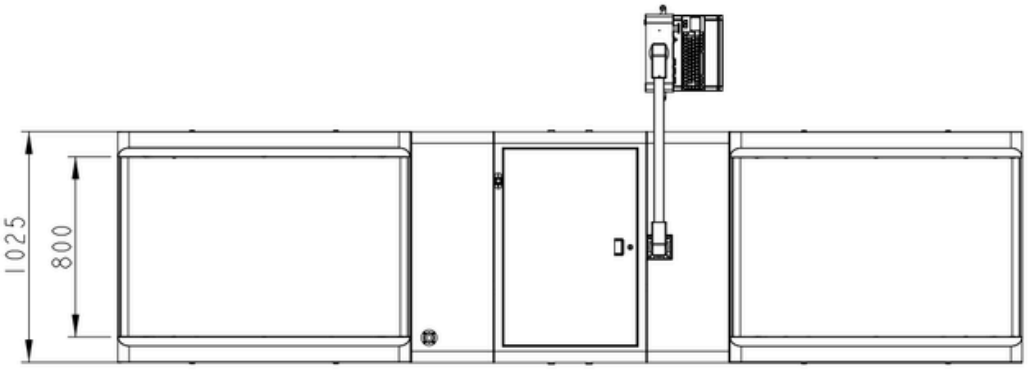
Technical Specifications

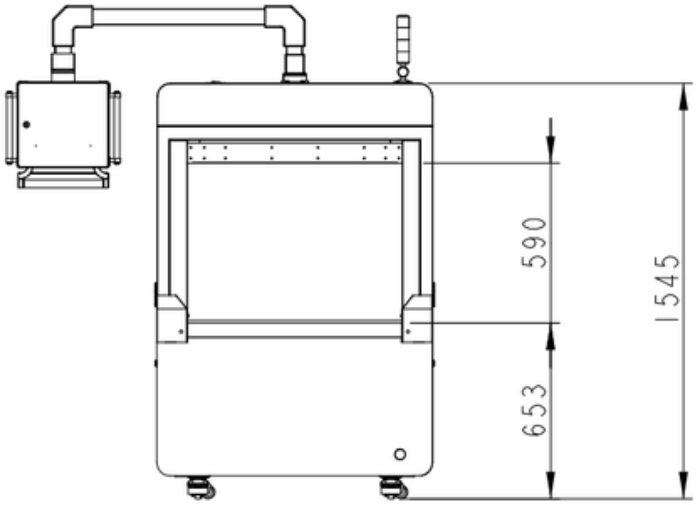
RFID UHF	
Frequency range	840–960 MHz
Protocol	ISO 18000-6C (EPC C1 G2)
RFID chip	Impinj R2000
RFID frequency mode	Fixed frequency / frequency hopping
Output power	33 dBm ± 1 dBm
Tag quantity	≥800 units
Read time	3–5 s
Read mode	Static
Operating mode	Cycle / trigger
Physical characteristics	
Material	1.2 mm carbon steel
Display	10" touchscreen
Dimensions	1025 × 1875 × 4022 mm
Packing dimensions	900 × 700 × 550 mm
Power	
Operating power	Max. 250 W / Standby 120 W
Operating voltage	AC 220 V
Environment	
Storage temperature	-20 to 60 °C
Operating temperature	-20 to 60 °C

GL Retail & Investments LLC
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
Phone: +1 (786) 537-3615
david@glretail.us
glretail.us

Dimensions







GL Retail & Investments LLC
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
Phone: +1 (786) 537-3615
david@glretail.us
glretail.us