IDT RFID TUNNEL

RFID Tunnel **24/7 Operation** **Bulk Scanning** **Seamless Integration**

The IDT UHF RFID Tunnel is a compact, high-speed RFID solution for automatic item-level tracking in logistics and retail operations. Available in multiple configurations with barcode integration, weighing systems, and smart rejection options for enhanced performance. With integrated antennas and a powerful UHF reader, it ensures accurate, hands-free scanning of tagged items as they pass through. Its enclosed design minimizes stray reads, making it ideal for packing lines, inbound/outbound stations, and quality checks.

PHYSICAL PARAMETER

Conveyor Tunnel	3000x900x900mm belt conveyor/Customizable
Metallic Chamber	1200x1000x1000mm with provisions for RFID hardware, wiring, and power supply
Material	Outer structure in SS304 and inner structure in aluminium profiles
Box Dimension	600 mm * 700 mm * 600 mm / Variable
Box Weight	Maximum 35 kgs
Conveyor Speed	15 to 30 mts/min
Reading speed	Up to 200 cartons / hour
Barcode Scanner	Inbuilt
Power supply	230 VAC
Database Connectivity	Wired RJ45 Connection (Wireless also possible but wired preferred for stability)

PERFORMANCE

Tunnel reader type	Ultra High Frequency
Working Frequency	865 - 868 MHz / 902 - 928 MHz
Air Interface	ISO18000-6C, EPC Class 1 Gen2 (ISO18000-6C)
Read Range	0-3m (adjustable)
Power Output	0-33 dBm (adjustable)
Max Receive Sensitivity	-86 dBm monostatic
Communications	Ethernet, RJ45

Antennas	9dBi antennas-UHF antennas connected with 4 port reader using co-axial cables
Reader	4-Port Reader

TUNNEL CONFIGURATIONS

Option #1	Fully Automated Tunnel with Smart Rejection
Option #2	Tunnel with Intelligent Barcode Automation
Option #3	Tunnel with Advanced Weighing Integration

ENVIRONMENTAL SPECIFICATION

Working temperature	-20~55ºC
Working humidity	-20%~80%
Storage temperature	-20~70ºC
Storage humidity	10%~90%

TUNNEL SOFTWARE

Software Integration	Edge Application, Web/Standalone interface, and API integration for POS/WMS/ ERP. MQTT and HTTPS Protocols for output communications.
OS	Android or Windows

ORDER INFORMATION

Part Number	IDT.UHF.TNL.UHF

APPLICATION AREA

Retail

Warehouse

DC

Note: All specifications are subject to change without prior notice to ensure continuous improvement and technological upgrades.