

Model X

Handheld Android UHF RFID Reader

Features

- All-in-one handheld RFID reader powered by Android 13 and an Octa-Core 2.0 GHz processor
- Supports UHF RFID EPC Gen2, ISO/IEC 18000-6C, and ATA/AAR tags, including Balise and AEI applications
- Extended RFID reading range of up to 10 meters with a circularly polarized 4.5 dBi antenna
- Integrated 1D and 2D barcode scanning for versatile data collection
- 5.5-inch HD display with dual cameras (5 MP front / 13 MP rear)
- Multiple connectivity options including 4G LTE, Wi-Fi, Bluetooth 5.0, and GPS
- Rugged IP65-rated design with 1.5 m drop resistance for demanding field environments
- Long-lasting 7,200 mAh battery for extended operation
- Includes Rail-ID Model Software supporting GEN2 Axle Tags, ATA/AAR Tags, and customized protocols

Applications

- Automatic Equipment Identification (AEI)
- Balise identification and data collection
- ATA/AAR tag reading
- RFID-based rail asset identification
- Axle tag reading and management
- Mobile RFID field inspections
- Rail yard inventory and asset tracking
- Barcode and RFID data collection in rail operations
- Maintenance and inspection activities
- Rail-ID software-based tag management and programming workflows

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IntertechRail's Rail-ID Model 1 is a rugged handheld RFID reader designed for rail asset identification and field data collection. Supporting ATA/AAR, AEI, Balise, EPC Gen2, and ISO/IEC 18000-6C applications, it combines long-range RFID performance, barcode scanning, and wireless connectivity in a compact, durable device. With Android 13, a high-capacity battery, and an IP65-rated design, the Model 1 delivers reliable performance for railway operations, inspections, and asset management.



AC Adaptor



USB Cable



Handstrap



Battery



Charging Cradle (optional)



Model X Handheld Android UHF RFID Reader

Display

Resolution: 720 x 1440
Size: 5.5 Inch IPS HD

System Specification

Processor: Cortex A73, 2.0GHz, Octa-Core
Memory: RAM 4GB / ROM 64GB
Operating System: Android 13

Camera

Front Camera: 5MP
Rear Camera: 13MP

Front Camera
5MP
Rear Camera
13MP

RFID Performance

Protocol
EPC GEN2
ISO/IEC 18000-6C
ATA/AAR
ATA/AAR
ATA/AAR Tags (Balise and AEI) – Read Only
Reading Range
Up to 10m (Depending on Environment and Tag Type)
Writing Range
Up to 0.5m (Depending on Environment and Tag Type)
RF Output
1W / 30 dBm (Max)
UHF RFID
Circularly Polarized Antenna / 4.5 dBi
Frequencies (Optional)
US / FCC: 902 ~ 928 MHz
EU / CE: 865 ~ 868 MHz
HF RFID (Optional)
Frequency: 13.56 MHz
Protocol: ISO 14443A & 15693, NFC-IP1, NFC-IP2
Read / Write Range: 2 ~ 5 cm

Barcode Scanner

2D Engine
Supports 1D & 2D Barcodes

Wireless Communication

Bluetooth
BT V2.1 + EDR
BLE V5.0
WLAN
802.11 a/b/g/n/ac
2.4 GHz / 5 GHz
WWAN
2G
GSM
GPRS
EDGE
850 / 900 / 1800 / 1900 MHz
3G
WCDMA
850 / 900 / 1900 / 2100 MHz
4G TDD-LTE
Band 38
Band 39
Band 40
Band 41
4G FDD-LTE
Band 1
Band 2
Band 3
Band 4
Band 5
Band 7
Band 8
Band 12
Band 17
Band 20
GPS
Embedded A-GPS
Tolerance ±5m

Physical Characteristics

Dimension (L × W × H): 170 × 80 × 145 mm
Weight: 600g (with Battery)

Power

Battery: 7,200 mAh Lithium-Ion Battery
Adaptor: DC 5V / 3A

IO Ports

USB Interface
1 x USB Type-C
Slot Configuration
2 x PSAM Card Slots
2 x SIM Card Slots
1 x TF Memory Slot
Supports up to 256GB

Notification

LED Indicator
Speaker
Vibrator

User Environment

Operating Temperature: -20°C ~ 50°C
Storage Temperature: -20°C ~ 70°C
Humidity: 5 ~ 95% RH (Non-condensing)
Drop Specification: 1.5m / 5ft
Sealing: IP65

Certification

FCC
CE

Included Software

Rail-ID Model Software
Supports:
GEN2 Axle Tags
ATA/AAR Tags (Balise and AEI)
Standard and Customized Protocols

Accessories

AC Adaptor
USB Cable
Handstrap
Battery
Charging Cradle (Optional)

P/N

2-02-9-2150

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