

# IDCRAFT

## RFID & NFC EXPERTS

### UHF | RAIN - Handheld Reader iData - T2X

- RAIN RFID EPC Class 1 Gen2 / ISO 18000-6C compliant)
- Multi-frequency RFID support (module dependent)
- Lightweight design (≈315 g), ultra-thin form factor
- Integrated 1D/2D barcode scanning
- Detachable 4,500 mAh battery



### UHF | RAIN - RFID & Barcode Ultra-Portable RFID Terminal

The T2X from iData is a compact, all-in-one portable RFID terminal designed for mobile operations requiring high flexibility and fast data capture. With support for LF, HF/NFC and UHF RFID modules, the T2X covers almost all RFID reading requirements across inventory, inspection and asset management workflows.

Supporting EPC Class 1 Gen2 / ISO 18000-6C for UHF RFID and ISO 14443 / ISO 15693 for HF/NFC, the T2X delivers reliable identification performance in both indoor and outdoor environments. Its smartphone-sized design, low weight and integrated 4G connectivity allow users to carry the device easily and operate efficiently without dependence on fixed infrastructure.

Rugged IP67 protection, industrial-grade durability and a detachable battery make the T2X suitable for continuous use in demanding field conditions.

### Common Applications

- Inventory and stock management
- Production and manufacturing management
- Warehouse operations
- Public infrastructure and utility management
- Field inspection and mobile data collection



### TECHNICAL SPECIFICATIONS

#### Physical Characteristics

Processor	Octa-core 2.0GHz high-performance processor
Operating System	Android 12.0 (GMS)
Memory (ROM+RAM)	64GB + 4GB (standard), 128GB+6GB(optional)
SIM	Two out of three SIM card slots, support dual SIM and dual standby (*Two out of three SIM card slots: two cards can be held at the same time, Nano SIM card + Nano SIM card /Nano SIM card +TF card)
Expansion Slot	Micro SD card (up to 256 GB)
Display Screen	6.21-inch, resolution: 1520*720 pixels
Touch Screen	Industrial capacitive screen, support wet-hand operation/glove mode/multi-touch/gesture operation
Camera	16 megapixels top camera, support auto-focus/PDAF; 5 megapixels front camera
Flashlight	800mA flashlight
Keypad	5 keypads in total: scan key *2, power key *1, volume key*2
Battery	3.85V lithium battery, with 4500mAh, detachable(standard) 3.85V lithium battery, with 4500mAh, detachable, support NFC(optional). Execution standard: GB31241-2022
Audio	Built-in microphone
Charging Method	Type-C and Pin-port charging, support 18W fast charging
Reminder	Vibration reminder/LED reminder/high power speaker/Audio reminder
Vibrating Motor	Built-in vibrating motor
Sensors	G-sensor/Proximity sensor/Light sensor/Geomagnetic sensor/ Gyroscope
Intercom Function (Optional)	Support one-button PTT calls

#### Structure Parameter

Dimension (L*W*D)	168mm*79mm*13.7mm (Thickest 25mm)
Weight	332.5g (including the battery)

#### Communication Interface

USB Interface	Type-C (with headset function) *1
OTG Interface	Support

#### UHF & LF RFID (choose one of these two modules)

	UHF RFID	LF RFID
Communication Protocol	ISO18000-6C/EPC Class1 Gen2	Support EMID/FDX-B/HDX protocols
Frequency	920MHz~925MHz 902MHz~928MHz 865MHz~868MHz	Meeting the reading of 125KHz/134.2KHz
Output power	0~25dbm(standard); 5~30dm(optional)	N/A
Antenna	Circular polarized antenna	N/A
Reading distance	0~25dbm, up to 3m (standard) 5~30dm, up to 5m (optional)	3~5cm

#### NFC (Optional)

Working Frequency	13.56 MHz
Reading Distance	Within 60 mm
Communication Protocol	ISO14443A/14443B/15693

#### Scanning Engine

Barcode Type	It can scan one-dimensional / two-dimensional barcodes
Scanning Accuracy	≥3.33mil
Scanning Angle	Pitch: ±70°; Skew : ±60°; Tilt: 360°
View Angle	Horizontal: 45°, Vertical 29.5°, Diagonal: 50°
Motion Error Tolerance	8m/s

#### Environmental Parameter

Working Temperature	-20°C - 55°C *Do not charge under low temperature conditions for the safety concerns
Storage Temperature	-40°C - 70°C (without battery)
Humidity	0%- 95% (no moisture condensation)
Drop Specification	Multiple drops to concrete floor from the height of 1.5m
Roller Drop Specification	1000 times of roller drops from a height of 0.5 meter
Ingress Protection	IP67
ESD Protection	±15KV (air discharge), ±8KV (contact discharge)

## TECHNICAL SPECIFICATIONS

### Communication Transmission

WWAN (Network Frequency)	China & Eurasian version: 2G: B2/B3/B5/B8 3G: WCDMA B1/B5/B8 CDMA BC0 TD-SCDMA: B34/B39 4G: FDD-LTE B1/B3/B5/B7/B8/B20 TDD-LTE: B34/B38/B39/B40/B41
WWAN (Data Service)	GSM/GPRS/EDGE/CDMA/UMTS/HSPA/HSPA+/ EVDO/WCDMA/TD-SCDMA/TDD-LTE/FDD-LTE
WLAN Function	Wi-Fi 802.11 a/b/g/n/ac/d/e/h/i/j/k/r/v/w (2.4G+5G dual-band Wi-Fi), support 5G PA amplifier and fast roaming
Bluetooth	Bluetooth 5.0
GPS	GPS/AGPS/BDS/Galileo/GLONASS/QZSS/GNSS

### Development Support

Programming Language	Java
Development API	iScan API (Scanning Development Kits), Device API (Device Management/Configuration Development Kits), Android Standard Interface
Development Tool	Eclipse/Android Studio

### Accessories (More details in accessories guide)

Standard Accessories	USB cable*1, power adapter*1, device-back strap*1, battery*1
Optional Accessories	Single charging cradle, Bottom charger, 2-in-1 charging cradle, 4-slot charging cradle, 4-slot battery charging cradle, fanny pack, protective film, protective case, hand strap