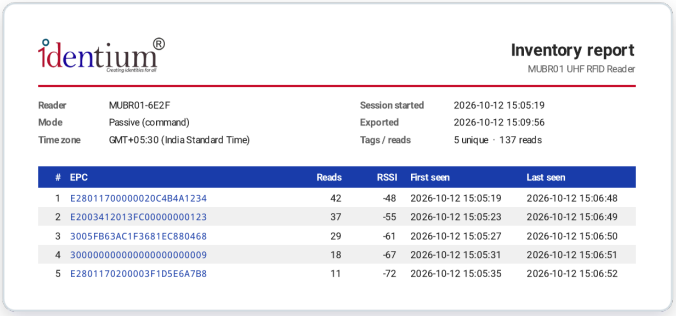
USER MANUAL

MUBR01

Portable Bluetooth UHF RFID Reader

Hardware, the Identium MUBR01 app and the SDK — set-up, daily use and troubleshooting





Inventory report
MUBR01 UHF RFID Reader

Reader	MUBR01-6E2F	Session started	2026-10-12 15:05:19
Mode	Passive (command)	Exported	2026-10-12 15:09:56
Time zone	GMT+05:30 (India Standard Time)	Tags / reads	5 unique · 137 reads

#	EPC	Reads	RSSI	First seen	Last seen
1	E28011700000020C4B4A1234	42	-48	2026-10-12 15:05:19	2026-10-12 15:06:48
2	E2003412013FC00000000123	37	-55	2026-10-12 15:05:23	2026-10-12 15:06:49
3	3005FB63AC1F3681EC880468	29	-61	2026-10-12 15:05:27	2026-10-12 15:06:50
4	30000000000000000000009	18	-67	2026-10-12 15:05:31	2026-10-12 15:06:51
5	E28011702000003F1D5E6A7B8	11	-72	2026-10-12 15:05:35	2026-10-12 15:06:52

PDF inventory report from the Identium MUBR01 app (sample)

THIS MANUAL COVERS	VERSION	PLATFORM
MUBR01 reader (also in the MUBR01-EVK evaluation kit)	—	Bluetooth 4.0 BLE
Identium MUBR01 app	2.1.0	Android 6.0 and later
MUBR01 SDK (Android library)	1.1 (API v1.7, build 230710)	Android · Java / Kotlin

Document version 1.2 · November 2026

Identium Tech Solutions Pvt. Ltd.
Plot No. 5, First Floor, Raja Dhirsain Marg, Garhi, Sant Nagar, East of Kailash, New Delhi 110065, India
+91 97181 99516 · 011-4714 7839 · WhatsApp +91 82877 32647 · info@identium.in

www.identiumone.com · www.indiarfidstore.com
Creating identities for all

The MUBR01 is a pocket-sized UHF RFID reader with no screen: one button, three status lights and a built-in rechargeable battery. It pairs with an Android phone or tablet over Bluetooth LE, and the phone shows everything the reader reads. This manual covers the reader itself, the free Identium MUBR01 app – inventory, export to Excel or PDF, tag read/write, reader settings and the RFID keyboard – and, for developers, the MUBR01 SDK on the Identium Resource Hub.

CONTENTS

01/ Packing List
02/ Equipment Diagram
03/ Power On/Off & Charging
04/ Button & Status Lights
05/ Install the Identium MUBR01 App
06/ Connect to the Reader
07/ Read Tags (Inventory)
08/ Export to Excel or PDF
09/ Tag Operations (Read, Write, Lock, Kill)
10/ Reader Settings & Information
11/ RFID Keyboard (Type Tags into Any App)
12/ Precautions
13/ For Developers: SDK Quick Start
14/ Parameters
15/ Troubleshooting
16/ Support

01/ Packing List

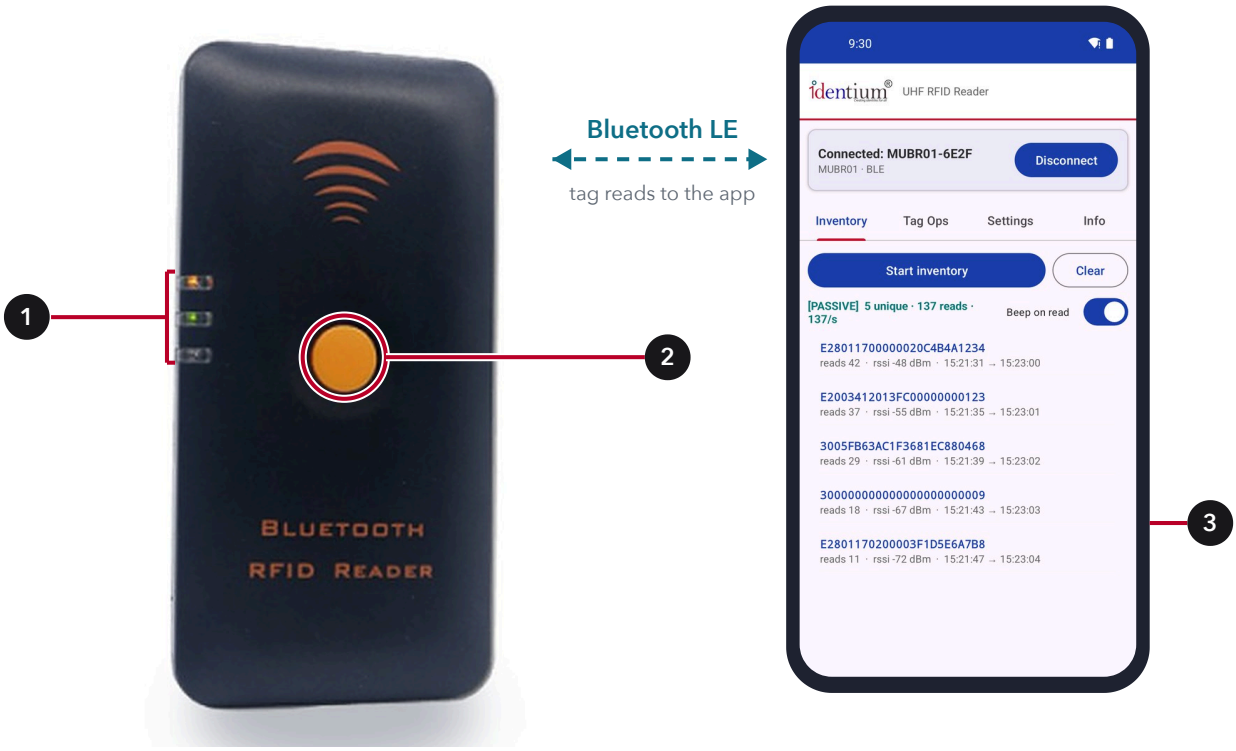
The MUBR01 is sold on its own and as the **MUBR01-EVK** Bluetooth reader evaluation kit. The evaluation kit contains:

Item	Qty	Notes
MUBR01 portable Bluetooth UHF reader	1	Screenless reader with one button and three status lights
UHF RFID sample tags and labels	1 set	Matched to your products or files; the mix is agreed and confirmed with your order
Identium MUBR01 Android app	–	Free download from the Identium Resource Hub, no licence fee (section 05)

You pair the reader with your own Android phone or tablet. The Identium MUBR01 app runs on Android 6.0 and later with Bluetooth LE.

> **NOTE**
> Bought the reader on its own? The app, the SDK and this manual are the same free downloads: www.identiumone.com/resourcehub/

02/ Equipment Diagram



The MUBR01 (front) and the Android phone it pairs with. Screen shows the app with sample tags.

1. Status lights (three) – power, charging and active status
2. Read button – press to read tags in Active (trigger) mode
3. Your Android phone or tablet with the Identium MUBR01 app

Parts of the reader

Part	Where	What it does
Read button	Centre of the front (orange)	In Active (trigger) mode, press it to read tags; the reads go to the phone.
Status lights	Three lights on the left edge of the front	Show the reader's power, charging and active status.
Power switch	On the reader's case	Switches the reader on and off.
Charging socket	On the reader's case	Micro-USB (5-pin); charges the built-in battery.
Antenna	Built in	2 dBi ceramic antenna; reads tags from 0 to 3 m.
Battery	Built in	3.7 V, 3000 mAh lithium polymer; not user-replaceable.

03/ Power On/Off & Charging



MUBR01, front view

Switch on

1. Switch the reader on with its power switch. The power light comes on.
2. On your phone, turn Bluetooth on and open the Identium MUBR01 app (section 05).

Switch off

1. If you still need the tag list, export it first (section 08): disconnecting empties the list.
2. In the app, tap **Disconnect**.
3. Switch the reader off with its power switch.

Restart (power-cycle)

Switch the reader off, wait a few seconds and switch it on again. Restart the reader after you give it a new Bluetooth name, when a connection attempt fails, and before you change settings after reading with the button in Active mode (section 10).

Charge the battery

1. Connect a Micro-USB (5-pin) cable from a USB charger to the reader's charging socket.
2. The charging light shows the charging status.
3. A full charge takes about 5.5 hours.

Battery	3.7 V, 3000 mAh rechargeable lithium polymer, built in (not user-replaceable)
Continuous reading	About 6 hours (RF on)
Standby	About 30 hours
Charging	Micro-USB (5-pin), about 5.5 hours

TIP
About 6 hours of continuous reading per charge. Plan an overnight charge between shifts.

04/ Button & Status Lights

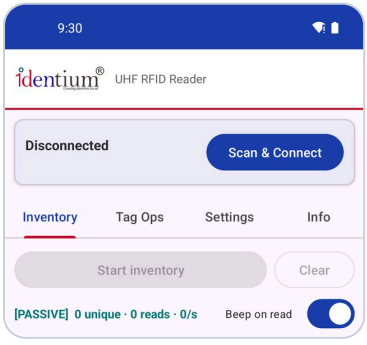
Control or light	What it does / what it shows
Read button – Active (trigger) mode	After you tap **Start inventory** in the app (or while the RFID keyboard is reading), press to read tags. The reads go straight to the app's Inventory list, or to the RFID keyboard (section 11).
Read button – Passive (command) mode	Reading is started and stopped in the app with **Start inventory** and **Stop**.
Power light	The reader is switched on.
Charging light	The battery's charging status.
Active light	The reader's active status.

The app shows its working mode, **[PASSIVE]** or **[ACTIVE]**, at the start of the summary line on the Inventory tab. Change the mode on the Settings tab (section 10). The app always opens in Passive mode; choose Active again on the Settings tab after you reopen it.

05/ Install the Identium MUBR01 App

The app is free. On the Identium Resource Hub, www.identiumone.com/resourcehub/, download the **Identium MUBR01 app** (listed on the hub as **MUBR01 – Demo App (Kotlin)**, file `MUBR01-Demo-Kotlin-v2.1.0.apk`).

Phone or tablet	Android 6.0 or later, with Bluetooth LE
App name / version	Identium MUBR01, version 2.1.0
Permissions	Nearby devices (Android 12 and later) or Location (Android 6 to 11), to find and connect to the reader
Storage	No storage permission needed; exports are shared or saved through Android's own file picker

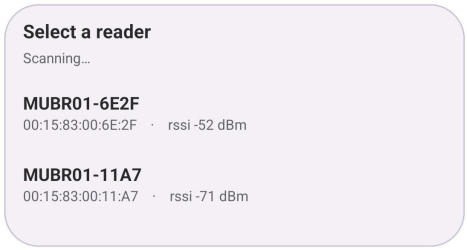


First start: Disconnected, with the four tabs

1. Download or copy the APK file to the phone.
2. Open the file. If Android asks, allow installs from this source (your browser or file manager), then tap **Install**.
3. Open **Identium MUBR01** from the app drawer.
4. The first time you scan, Android asks for the **Nearby devices** permission – tap **Allow**. On Android 6 to 11, allow **Location** instead and switch Location on; Android uses it for Bluetooth LE scanning.
5. If Bluetooth is off, the app asks to turn it on – tap **Allow**.

The main screen has a connection bar with **Scan & Connect** at the top and four tabs: **Inventory**, **Tag Ops**, **Settings** and **Info**.

06/ Connect to the Reader



Select a reader: name, address and signal strength (sample data)

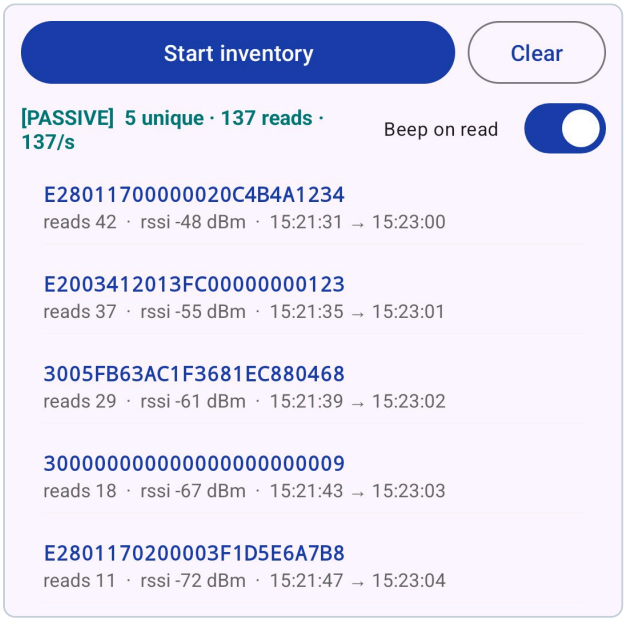
1. Switch the reader on.
2. On the Inventory tab, tap **Scan & Connect**.
3. A sheet lists the Bluetooth LE devices nearby with their address and signal strength (RSSI). Your reader's name may differ from the screens in this manual; pick the one with the strongest signal.
4. Tap your reader. The bar changes to **Connected: <name>** and the buttons on the tabs become active.

> **TIP**
> Hold the reader next to the phone: the nearest device has the strongest signal, the least negative RSSI (−52 dBm is stronger than −71 dBm).

The reader takes one Bluetooth connection at a time. If it does not show up, check that no other phone is connected to it.

If the reader is switched off or goes out of range, the app shows **Reader disconnected (powered off or out of range)**. Switch it on or move closer, then tap **Scan & Connect** again.

07/ Read Tags (Inventory)



Inventory with sample tags: one row per tag, with reads, RSSI and first → last seen

1. Tap **Start inventory**. The list empties and a new count begins; the button changes to **Stop**.
2. Point the reader at the tags. Each tag appears once in the list with its EPC, its read count, the last RSSI and the time it was first → last seen.
3. The summary line shows the mode, the number of unique tags, total reads and reads per second.
4. The phone beeps as tags are read. Switch **Beep on read** off for silent counting.
5. Tap **Stop** to end the count. The list stays on screen until you tap **Start inventory** again, **Clear** or **Disconnect**.

CAUTION

Start inventory always begins a new count and empties the list, and so does **Disconnect**. Export to Excel or PDF (section 08) before you tap Start again or Disconnect.

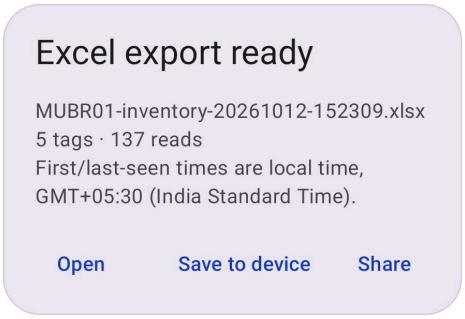
Reading with the button (Active mode)

In Active (trigger) mode, tap **Start inventory** to arm the reader, then press the read button on the reader. Tags stream into the same list.

TIP

Lower the RF power to pick out one item on a crowded shelf; raise it to count a whole rack (section 10). The read count and RSSI show whether a tag is heard clearly or only just.

08/ Export to Excel or PDF



Export ready: Open, Save to device or Share (sample data)

1. Tap **Stop** so the list is complete. Export before you tap **Start inventory** again or **Disconnect**: both empty the list.
2. Tap **Export Excel** or **Export PDF** at the bottom of the Inventory tab.
3. A dialog shows the file name (date and time, for example `MUBR01-inventory-20261012-152309.xlsx`), the number of tags and reads, and the time zone.
4. Tap **Share** to send the file (email, messaging, Drive, Bluetooth), **Save to device** to choose a folder such as Downloads, or **Open** to view it now.

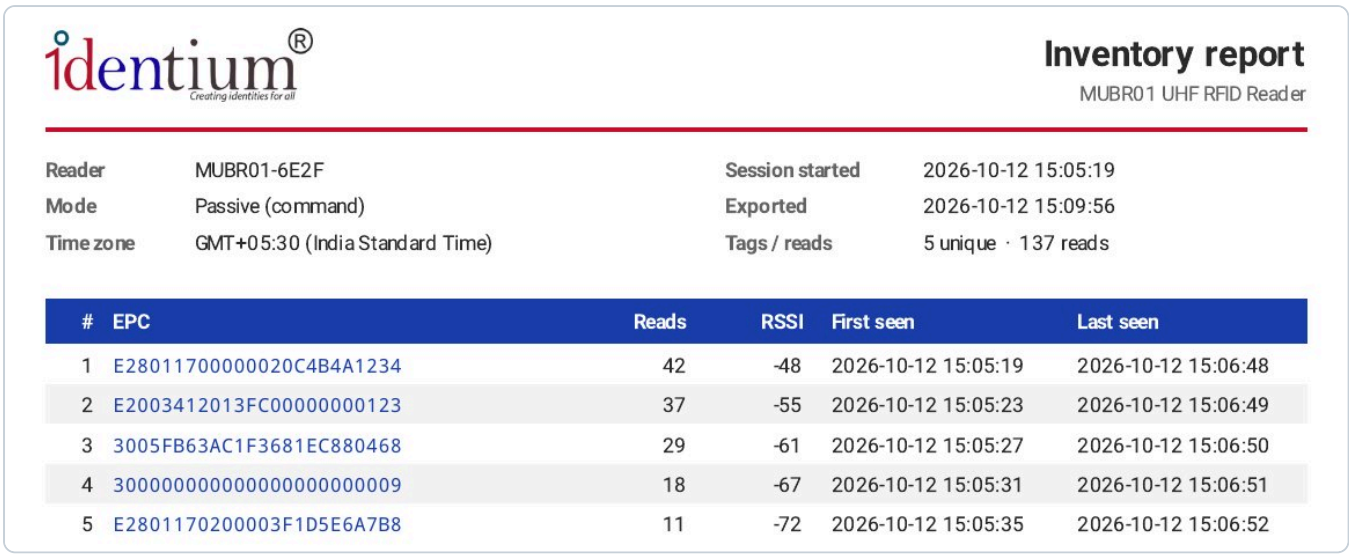
Each export lists the reader, mode, session start, export time and time zone, then one row per tag: EPC, reads, last RSSI, first seen and last seen. Times are the phone's local time. In Excel the EPCs stay exact text and the times are real date-times you can sort and filter.

Identium MUBR01 — Inventory export

Reader	MUBR01-6E2F
Mode	Passive (command)
Session started	2026-10-12 15:05:19
Exported	2026-10-12 15:09:18
Time zone	GMT+05:30 (India Standard Time)
Unique tags	5
Total reads	137

#	EPC	Reads	Last RSSI (dBm)	First seen	Last seen
1	E28011700000020C4B4A1234	42	-48	2026-10-12 15:05:19	2026-10-12 15:06:48
2	E2003412013FC00000000123	37	-55	2026-10-12 15:05:23	2026-10-12 15:06:49
3	3005FB63AC1F3681EC880468	29	-61	2026-10-12 15:05:27	2026-10-12 15:06:50
4	300000000000000000000009	18	-67	2026-10-12 15:05:31	2026-10-12 15:06:51
5	E2801170200003F1D5E6A7B8	11	-72	2026-10-12 15:05:35	2026-10-12 15:06:52

Excel export (.xlsx), opened in a spreadsheet app (sample data)



Inventory report

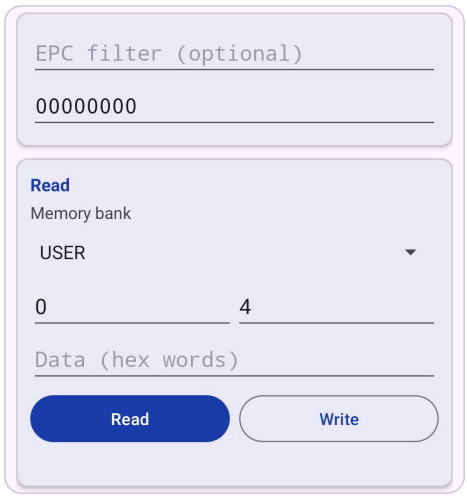
MUBR01 UHF RFID Reader

Reader	MUBR01-6E2F	Session started	2026-10-12 15:05:19
Mode	Passive (command)	Exported	2026-10-12 15:09:56
Time zone	GMT+05:30 (India Standard Time)	Tags / reads	5 unique · 137 reads

#	EPC	Reads	RSSI	First seen	Last seen
1	E28011700000020C4B4A1234	42	-48	2026-10-12 15:05:19	2026-10-12 15:06:48
2	E2003412013FC00000000123	37	-55	2026-10-12 15:05:23	2026-10-12 15:06:49
3	3005FB63AC1F3681EC880468	29	-61	2026-10-12 15:05:27	2026-10-12 15:06:50
4	300000000000000000000009	18	-67	2026-10-12 15:05:31	2026-10-12 15:06:51
5	E2801170200003F1D5E6A7B8	11	-72	2026-10-12 15:05:35	2026-10-12 15:06:52

PDF export: Identium-branded A4 inventory report (sample data)

09/ Tag Operations (Read, Write, Lock, Kill)



Tag Ops: EPC filter and access password, then read and write

1. **Target (optional):** type an EPC in **EPC filter** to act on one tag only. Enter the tag's access password in the field below it (default `00000000`).
2. **Read:** choose the memory bank (RESERVED, EPC, TID or USER), enter the start word address and the word count, then tap **Read**. The data appears below.
3. **Write:** choose the memory bank and start word address as for Read, enter the data in whole words (4 hex characters each) in **Data (hex words)** and tap **Write**. To give a tag a new EPC, choose **EPC** and start at word address **2**.
4. **Lock:** choose the area (EPC, TID, USER, ACCESS_PWD or KILL_PWD) and the action (LOCK, UNLOCK or PERMALOCK), then tap **Lock**.
5. **Kill:** scroll down, enter the 8-digit hex kill password and tap **Kill tag**. The app asks you to confirm.

CAUTION

Kill and PERMALOCK are permanent. A killed tag can never be read again, and a permalocked area can never be changed. Set an EPC filter so only the intended tag is affected.

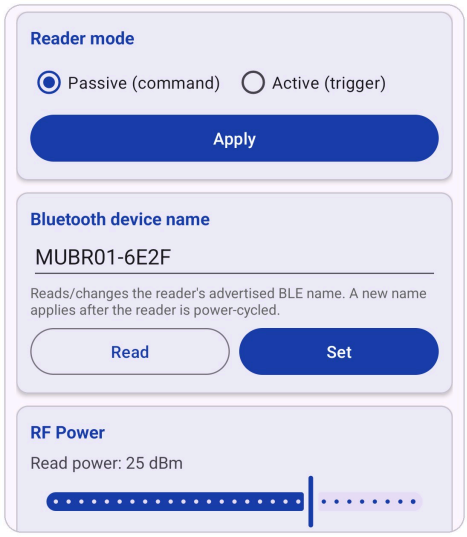
TIP

Tap **Stop** on the Inventory tab first: Read, Write, Lock and Kill work only while no inventory is running. To be sure you write to the right tag, use the EPC filter, or lower the RF power so only the nearest tag answers. A tag can only be killed after a non-zero kill password has been written to it (RESERVED bank, words 0–1); the app refuses kill password 00000000. To protect a lock, first write an access password (RESERVED bank, words 2–3).

10/ Reader Settings & Information

Open the **Settings** tab while connected. Change a value, then tap the **Apply** button in the same card.

> **NOTE**
> Tap **Stop** on the Inventory tab first: the Apply buttons work only while no inventory is running. In Active mode the RFID keyboard starts reading as soon as it opens, so close it too.



Reader mode, Bluetooth name and RF power (sample data)

- **Reader mode** – **Passive (command)**: the app reads on demand with Start inventory. **Active (trigger)**: the reader sends tags when you press its read button; start inventory in the app first, then press the button. The app opens in Passive mode each time you start it.
- **Bluetooth device name** – tap **Read** to see the reader's name, or type a new name and tap **Set**. The new name appears after you restart the reader.
- **RF Power** – read and write power in dBm, set with the sliders within the range the reader reports (5–30 dBm per the specification). Higher power reads further; lower power picks out a single item.



Gen2 Air Protocol and Save to reader flash

- **Region** – the regulatory region; its card sits between RF Power and Gen2 Air Protocol. In India, choose **IN** (India) and save it to the reader flash.
- **Gen2 Air Protocol** – Session (Session0 to Session3), Target (A, B, AB, BA) and Q algorithm (Dynamic, or Static with a Q value) tune reading for your tag population. Keep the defaults unless you need a change.
- **Save to reader flash** – stores the current region, power and Gen2 settings in the reader so they survive a restart.

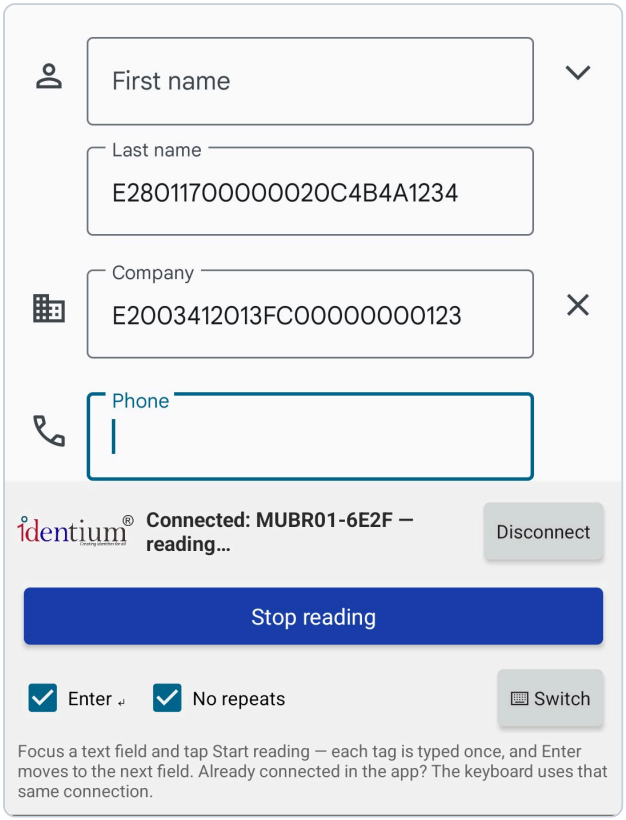
> **CAUTION**
> Once you have read with the button in Active mode, the reader keeps waiting for the button and does not accept setting changes. Restart the reader, connect, apply your settings, then read again.

Reader information (Info tab)

Open the **Info** tab and tap **Refresh**. The card lists the reader's firmware and hardware versions, the live radio temperature and the tag protocols it supports. Use it to confirm the reader is answering, and to check the radio temperature during long reading sessions.

11/ RFID Keyboard (Type Tags into Any App)

The app includes the **Identium RFID Keyboard**. Select it as your keyboard and each tag you read is typed into whatever text field has focus – a web form, a spreadsheet, your billing or ERP screen – with no software integration. The screenshot shows it filling the fields of a new phone contact, one tag per field.



The RFID keyboard typing EPCs into a contact form (sample data)

1. On **Settings → RFID Keyboard**, tap **Enable keyboard** and switch on **Identium RFID Keyboard** in Android's list.
2. Tap **Choose keyboard** and select **Identium RFID Keyboard**.
3. Connect to the reader in the app as usual. The keyboard shares the app's connection; its bar shows **Connected: <reader>**. You can also tap **Connect** in the bar to reconnect to your last reader.
4. Open any app, tap a text field, then tap **Start reading**. In Active (trigger) mode the keyboard arms itself – just press the reader's button.
5. Each tag is typed into the field. With **Enter ↵** ticked, the keyboard presses Enter after every tag so the next tag goes into the next field or row. **No repeats** types each tag only once per reading session.

Reading stops when the keyboard closes. Tap **Switch** to go back to your normal keyboard.

> **TIP**
> If a field ignores Enter, the next tag is added to the same field. Use a list or spreadsheet, or untick Enter and read one tag per field.

12/ Precautions

- Use the reader between −5 and +50 °C, and store it between −10 and +45 °C.
- The 3000 mAh lithium polymer battery is built in and not user-replaceable. Do not open the case.
- Charge through the Micro-USB (5-pin) socket. A full charge takes about 5.5 hours.
- In India, set the region to **IN** (India) and save it to the reader flash before use.
- The reader accepts one Bluetooth connection at a time. Disconnect it from one phone before you connect from another.
- Kill and PERMALOCK cannot be undone. Set an EPC filter and check the target before you confirm.
- Use the lowest RF power that reads your tags reliably; it keeps neighbouring items out of the count.
- Tags on metal, foil-wrapped packs or liquids may read only at close range. Check the read count and RSSI in the app, and use tags made for those surfaces.

13/ For Developers: SDK Quick Start

The **MUBR01 – SDK** download on the Resource Hub (`Identium-MUBR01-SDK-1.1.zip`, library API v1.7, build 230710) holds the reader's Android library and its documentation. The Identium MUBR01 app (section 05) is built on the same library: install it to see the main features working on a current phone.

What is in the package

Folder	Contents
`libs/`	The MUBR01 Android library `identium-mubr01-ble-1.7.jar` (API v1.7, Java package `in.identium.mubr01`). Java 7 bytecode, so it runs on current Android versions without recompiling.
`docs/`	The full API reference (`Identium-MUBR01-Android-API-Reference.pdf`): every class, method and parameter for connection, inventory, tag memory read/write, lock and kill, and active mode; plus the demo app guide (`Identium-MUBR01-Demo-App-Guide.pdf`).
`demos/`	Two sample Android projects with source: `MUBR01-QuickStart` (scan, connect, read tags, set power) and `MUBR01-BLE-Demo` (the full Bluetooth demo app described in the demo app guide). For a new project use current tooling (Gradle 8, AndroidX, targetSdk 34) as in the steps below.

These folders sit inside the zip's top-level folder `Identium-MUBR01-SDK-1.1/`, next to `README.md` (set-up steps and Java examples).

Integrate the reader in six steps

1. **Add the library.** Copy `identium-mubr01-ble-1.7.jar` from the package's `libs/` folder into `app/libs/` and add it in `app/build.gradle.kts`. Build with compileSdk/targetSdk 34, minSdk 23.
2. **Declare permissions** in the manifest: `BLUETOOTH_SCAN` and `BLUETOOTH_CONNECT` for Android 12 and later; `BLUETOOTH`, `BLUETOOTH_ADMIN` and `ACCESS_FINE_LOCATION` up to Android 11.
3. **Ask at run time.** Request those permissions, then ask the user to switch Bluetooth on with `ACTION_REQUEST_ENABLE`. On Android 13 and later the library cannot switch Bluetooth on by itself.
4. **Connect.** Scan for the reader over Bluetooth LE, connect to it and open the reader object.
5. **Read tags.** Set the read plan for antenna 1 and call the read method in a loop. In Active (trigger) mode, set the communication mode to active and add a tag listener; tags arrive on a library thread, so pass them to your UI.
6. **Configure and keep it stable.** Set read and write power (in centi-dBm), region IN and the Gen2 parameters, and save them to flash. Run every library call on one background thread and keep one reader connection per app process. The API reference in `docs/` gives the exact calls; for integration help, contact Identium.

```
dependencies {
    implementation(fileTree("libs") { include(listOf("*.jar")) })
}

<uses-permission android:name="android.permission.BLUETOOTH_SCAN"
    android:usesPermissionFlags="neverForLocation" />
<uses-permission android:name="android.permission.BLUETOOTH_CONNECT" />
<uses-permission android:name="android.permission.BLUETOOTH" android:maxSdkVersion="30" />
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN" android:maxSdkVersion="30" />
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" android:maxSdkVersion="30" />
```

Steps 1 and 2 in code: app/build.gradle.kts, then the AndroidManifest.xml permissions (the last three apply up to Android 11)

14/ Parameters

Model	MUBR01
Type	Portable Bluetooth UHF RFID reader, no screen
Frequency	865–868 MHz (India); other regional bands (902–928 MHz, 840–845 / 920–925 MHz) also supported, chosen in the app's Region setting
Tag protocol	EPC Class 1 Gen 2 (ISO 18000-6C)
Interface	Bluetooth 4.0 BLE
Compatible with	Android 4.3 and above (phones and tablets); the Identium MUBR01 app needs Android 6.0 or later
Antenna	Built-in 2 dBi ceramic antenna
RF output	5–30 dBm (1 W), ±1 dBm, adjustable
Read range	0–3 m
Read rate	≥ 50 tags/s
Battery	3.7 V 3000 mAh rechargeable lithium polymer (not user-replaceable)
Working time	About 6 h continuous RF (active); about 30 h standby
Charging	Micro-USB (5-pin), about 5.5 h
Controls & indicators	One button; power, charging and active status lights
Dimensions	130 × 65 × 16 mm
Operating temperature	−5 to +50 °C
Storage temperature	−10 to +45 °C
Certification	BIS and WPC approved
Software	Identium MUBR01 app 2.1.0 (Android); MUBR01 SDK 1.1 (Android library, API v1.7, build 230710)

Specifications are indicative and may change without notice; confirm details for your order in the quotation.

15/ Troubleshooting

Problem	Likely cause	What to do
Reader does not switch on	Battery flat	Charge it over Micro-USB (about 5.5 h for a full charge), then switch on.
Bluetooth permissions are required message	Nearby devices (Android 12+) or Location (Android 6–11) permission was refused	In Android Settings → Apps → Identium MUBR01 → Permissions, allow it, then scan again.
Bluetooth must be ON message	Phone Bluetooth is off	Allow the app's request to turn Bluetooth on, or switch it on in quick settings.
No readers found	Reader off or out of range; Location off on Android 6–11	Switch the reader on and hold it next to the phone. On Android 6–11, switch Location on.
Connect fails or times out	Reader connected to another phone, or not responding	Disconnect it from the other phone. Restart the reader and try again.
Reader disconnected (powered off or out of range)	Reader switched off, battery flat or too far away	Charge or switch on the reader, move closer, then tap Scan & Connect.
Tag list emptied	**Start inventory** or **Disconnect** was tapped; each begins a new count	Export to Excel or PDF before you tap Start again or Disconnect.
Apply, Read, Write, Lock or Kill buttons greyed out	An inventory is running (in Active mode the RFID keyboard starts one when it opens)	Tap Stop on the Inventory tab, or close the RFID keyboard.
Few tags read, or none	RF power too low, wrong region, tag too far, or tag on metal or liquid	Raise read power, choose region **IN** in India, move within 0–3 m, and use tags suited to the surface.
Setting changes are ignored	The reader has been read with its button in Active mode	Restart the reader, connect, apply the settings, then read again.
New Bluetooth name does not appear	The name applies after a restart	Restart the reader, then scan again.
RFID keyboard types nothing	Keyboard not connected, or no text field selected	The keyboard bar must say Connected and reading… (or trigger armed). Tap a text field first.
Next tag goes into the same field	The field ignores Enter	Use a list or spreadsheet, or untick Enter and read one tag per field.
Export: **No app on this phone opens … files**	No spreadsheet or PDF viewer installed	Use Share or Save to device, or install a viewer.

16/ Support

For help with installation, integration or a fault that the steps above do not clear, contact Identium. Please keep the product model, the software version shown in the app and a short description (or screenshot) of the problem ready.

Company	Identium Tech Solutions Pvt. Ltd.
Address	Plot No. 5, First Floor, Raja Dhirsain Marg, Garhi, Sant Nagar, East of Kailash, New Delhi 110065, India
Phone	+91 97181 99516 · 011-4714 7839
WhatsApp	+91 82877 32647
Email	info@identium.in
Software and documents	www.identiumone.com/resourcehub/
Buy hardware and tags	www.indiarfidstore.com

This product and its software are updated from time to time; screens and specifications may change without notice. Check the Resource Hub for the latest version of this manual.