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Creating identities for all

USER MANUAL

F529

Long-Range 2.4 GHz Active RFID Reader

Hardware, the Identium Active Reader app and the SDK — installation, set-up, daily use and troubleshooting



THIS MANUAL COVERS	VERSION	PLATFORM
Identium Active Reader app (Identium Reader)	2.1	Android 7.0 and newer
Active Reader SDK (C library, server demo, samples, documents)	1.0 (library V2.0)	Windows x86 / x64 (prebuilt); Linux (build from source)

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Creating identities for all

The F529 is a 2.4 GHz long-range active RFID reader built as an outdoor base station: four directional antennas, the radio and the network link sit in one weatherproof housing. It picks up Identium active tags at up to 400 m (directional; the real range depends on the tag type and the site), reports which of its four sides each tag is on, and sends every read to your server over mobile data (TCP/IP over a SIM card). This manual takes you through unpacking the reader, fitting the SIM card and mounting the reader, setting it up from an Android phone with the Identium Active Reader app (version 2.1), testing the antennas, watching tags live, and – for developers – receiving the reader's data with the Active Reader SDK.

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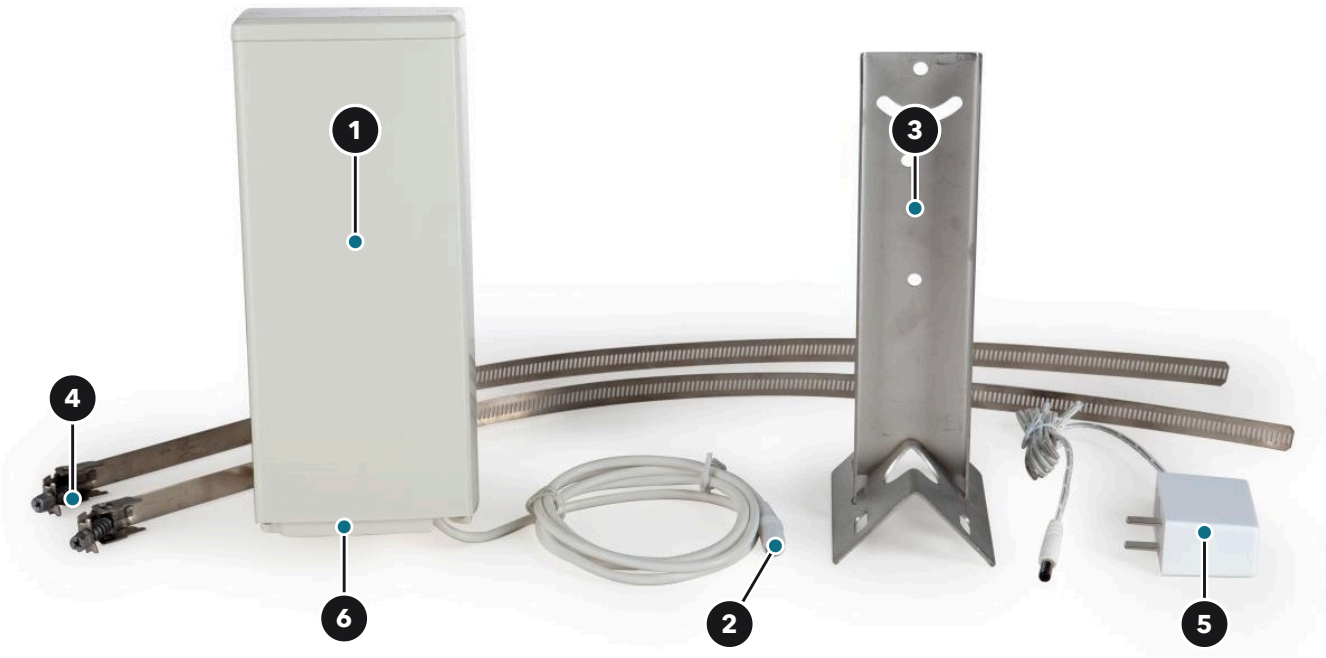
01/ Packing List

No.	Item	Qty
1	F529 Active RFID Reader – four antennas built in, power lead with DC jack attached	1
2	Mounting bracket	1
3	Pole clamps (band type)	2
4	Power adapter, 12 V 2 A	1

Contents as shown in the Identium F529 catalogue. Your delivery note is the final list.

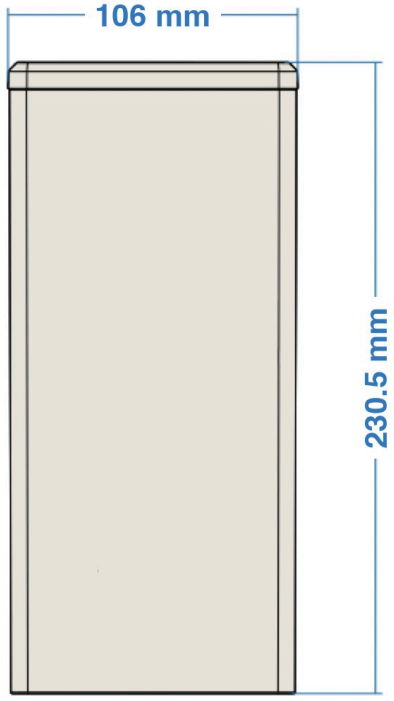
> **NOTE**
> Also have ready a **data SIM card** with an active data plan from your mobile operator – the reader sends its tag reads over mobile data. Active tags are ordered separately: Identium supplies matching 2.4 GHz active tags – confirm the tag model for this reader when you order.

02/ Equipment Diagram



F529 reader and accessories. The adapter plug type may differ from the photo.

1. Reader housing – one directional antenna inside each side
2. Reader power lead with DC jack (9–12 V DC in)
3. Mounting bracket – for a pole or a wall
4. Pole clamps (2)
5. Power adapter 12 V 2 A with DC plug
6. SIM card tray – on the underside (section 03)



Front view: 106 mm wide, 230.5 mm tall; 106 mm deep

The four antennas

Each side of the housing has its own antenna. The reader reports every tag together with the number of the antenna that heard it, so your software knows which side of the reader the tag is on. The app and the SDK use these names:

Antenna	Direction
Antenna 1	East
Antenna 2	South
Antenna 3	West
Antenna 4	North

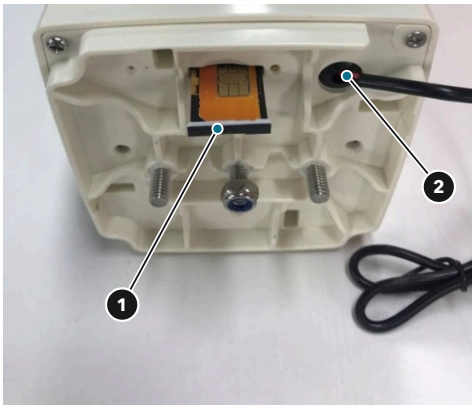
Mount the reader so that its sides face the compass directions you want to report. After mounting, confirm which side is which with the **Antenna Debug** test (section 09).

03/ Installation and Power

Survey the site before you drill. A reader that is badly placed is hard to move later, and every read is located relative to where the reader sits.

Choose the location

- Mount the reader high on a pole or wall, with a clear view over the area you want to cover.
- Pick a point with mains power close by, and a protected, dry place for the power adapter.
- When you install several readers, plan their read zones so that they cover the whole area with as little overlap as possible.



Underside of the reader: (1) SIM tray, half inserted; (2) power lead (lead colour may differ)

Fit the SIM card

Do this on the bench, before you mount the reader, while the underside is easy to reach.

1. Turn the reader over. The SIM tray (1) sits in the underside of the housing, beside the power lead (2).
2. Place the data SIM card in the tray as shown.
3. Slide the tray into its slot with your fingers.
4. Press the tray fully home with a fingernail until it locks. The holder is self-locking, so the tray stays in place once it is home.

Mount the reader

1. **On a pole:** pass the two pole clamps through the bracket and tighten them around the pole. **On a wall:** mark the bracket holes, drill, fit expansion screws and fix the bracket.
2. Fix the reader to the bracket. Turn it so its sides face the directions you planned, then tighten the bolts.
3. Push the adapter's DC plug into the reader's DC jack and tie the two together with a nylon cable tie so they cannot pull apart.
4. Keep the adapter out of rain and standing water – indoors or in a weatherproof box.
5. Plug the adapter into a mains socket to power the reader.
6. Set the reader up from your phone with the Identium Active Reader app (sections 04–07).

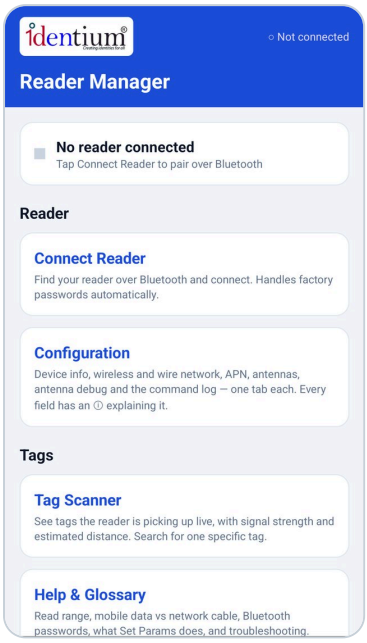
CAUTION

Power the reader only from the supplied 12 V 2 A adapter or another regulated **9–12 V DC** supply. A long, thin power cable loses voltage – keep it short so the reader always receives at least 9 V, or it may miss tags.

TIP

Bring a ladder or lift, drill and bits, expansion screws for wall mounting, screwdriver, spanner, cable ties and electrical tape. Work safely at height and treat the mains supply with care.

04/ Install the Identium Active Reader App



Home screen

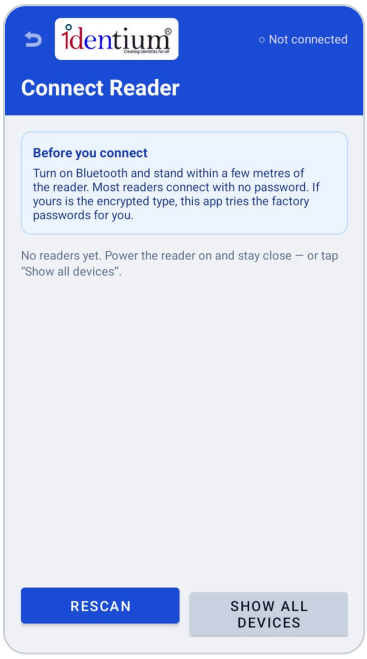
The app sets the reader up over Bluetooth. You need an Android phone with **Android 7.0 or newer** and Bluetooth.

1. On the phone, open **www.identiumone.com/resourcehub/** and download **Active Reader – Android App** (`Identium-Active-Reader-v2.1.apk`).
2. Open the downloaded file. If Android asks, allow installs from this source, then tap **Install**.
3. Open **Identium Reader** (home screen title: **Reader Manager**). When asked, allow **Nearby devices** (Android 12 and newer) or **Location** (Android 11 and older – also switch Location on).
4. The home screen shows the connection band and the **Connect Reader**, **Configuration** and **Tag Scanner** tiles. Scroll to the bottom of the home screen to see the app version (**v2.1**).

> **NOTE**
> **Configuration** and **Tag Scanner** need a connection; if you open them first, the app takes you to **Connect Reader**.

> **CAUTION**
> **Updating from version 2.0?** Uninstall **Identium Reader** 2.0 first (**Settings › Apps › Identium Reader › Uninstall**), then install 2.1. Version 2.1 is signed with Identium's new signing key, so Android will not install it over 2.0 and reports **App not installed**. Nothing is lost: the reader keeps its own settings, and version 2.0 kept none on the phone.

05/ Connect to the Reader



Connect Reader

1. Power the reader and stand within a few metres of it with Bluetooth on. The reader accepts **one** Bluetooth connection at a time, so disconnect any other phone first.
2. Tap **Connect Reader**. The app keeps searching and lists readers strongest signal first, so the unit in front of you is normally at the top.
3. Tap your reader. Leave the password box **empty** and tap **Connect** – the app tries the factory Bluetooth password for you without showing it. Type a password only if this reader has its own site password.
4. The app opens **Configuration**, and the chip at the top right shows • and the reader's name. Tap that chip on any screen to disconnect when you are done.

Reader not listed? Tap **Show all devices** to see every Bluetooth device nearby, then tap **Rescan**.

"This reader is locked"? Enter the reader's Bluetooth password, or tap **Try defaults** and the app tries the factory passwords for you. The app answers the reader's pairing request by itself; if Android still asks for a pairing PIN, contact Identium support.

06/ Configure the Reader

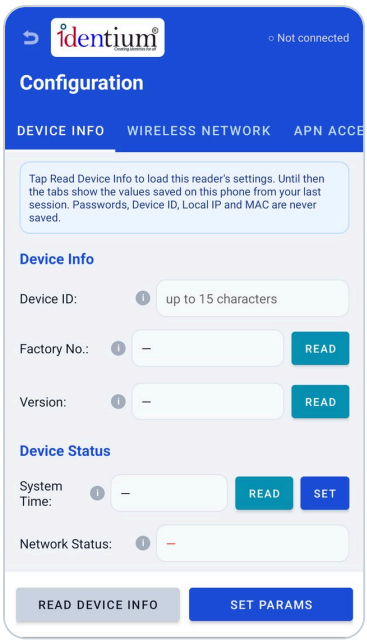
Configuration groups every setting into eight tabs. Swipe left and right, or tap a tab name. Two buttons stay at the bottom of every tab:

Button	What it does
Read Device Info	Loads the reader's current settings and status into every tab. Always do this first – until you do, a blue note under the tab names reminds you.
Set Params	Checks the values you changed, lists every change and warns you before anything is sent (see below). It then saves the settings from **all** tabs except APN in one go. The reader restarts: tag reading pauses for about 30 seconds and the Bluetooth link drops. Reconnect and tap **Read Device Info** to check the new values. It also deletes stored tag reads – see the caution below.

CAUTION

Set Params deletes tag reads still waiting in the reader's memory. Check **Total ID in Buffer** on Device Info first. If it is above 0 and those reads matter, let the reader deliver them before you change settings, or record that they will be lost.

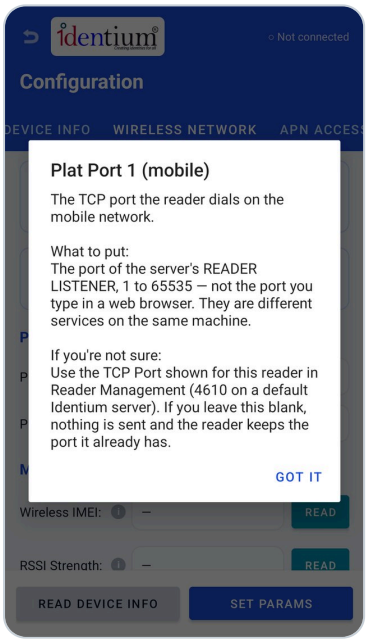
Tab	Use it for
Device Info	Device ID, factory number, firmware version, reader clock, link status, tags waiting in memory
Wireless Network	Your server's address and port (**Plat IP 1**, **Plat Port 1**); modem IMEI and mobile signal; Bluetooth password
APN Access	Mobile network APN for the SIM (has its own Read APN / Set APN buttons)
Antenna Parameters	Read range of each antenna, repeat-report timers, buzzer
Wire Network	Wired-link settings. This manual sets the reader up over mobile data, so leave this tab as set at the factory
Antenna Info	Live firmware, gain and threshold reported by each antenna; link and reader mode
Antenna Debug	Walk-round test with one tag to prove every antenna works
Command Log	Every command sent to the reader and every reply – copy it for support



Device Info – no reader connected yet, so the blue note asks you to read it first

Device Info

- **Device ID** – the ID (up to 15 letters or digits) the reader sends with every tag read. It must match the Device ID registered for this reader on your server, character for character. It is set at the factory; change it only together with the server.
- **Factory No.** and **Version** – read-only. When you contact support, quote the **Device ID** and **Version**; give the Factory No. only if support asks for it.
- **System Time** – the reader's clock, used to time-stamp tags it stores while offline. Tap **Set** to copy the phone's time to the reader, for example after a power cut.
- **Network Status** and **Wireless Connect IP** – whether the reader has a live session with your server over mobile data; **Wireless connected** is what you want to see.
- **Total ID in Buffer** – tag reads waiting to be delivered. It should stay near zero; **Set Params** deletes them.



Help for Plat Port 1 – no reader connected

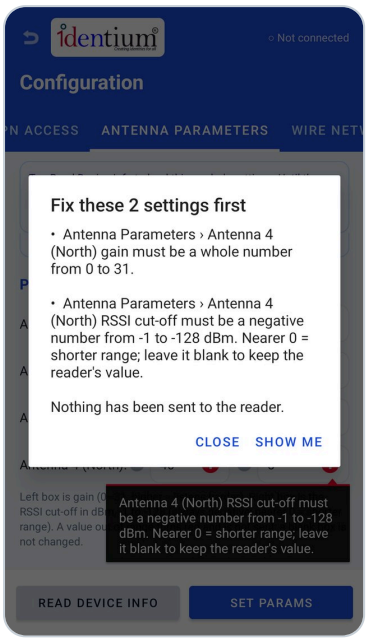
Help on every field

Every setting has a grey ⓘ button. Tap it to see what the field means, what to enter and what to do if you are not sure.

Command Log

The **Command Log** tab lists everything sent to the reader (→) and everything it answered (←), newest first. When a setting does not apply, the answer is almost always here. Tap **Copy** and paste the log into your message to Identium support.

Values the reader cannot take



Set Params stops two out-of-range values – nothing is sent

The app checks every value you type. A value outside the limits below turns red as you type, and **Set Params** will not send it: it lists each problem and **Show me** opens the tab. A box left **blank** is never sent – the reader keeps the value it already has.

Setting	Accepted values
Device ID	Up to 15 letters or digits
Plat Port 1, Plat Port 2, Local Port	1 to 65535
Antenna gain	0 to 31
Antenna RSSI cut-off	−1 to −128 dBm (always negative)
Filter Time	0 to 65535 s
Residence Time	0, or 60 to 65535 s
Direction Filter Time	0 to 255 s
Local IP, Subnet Mask, Gateway	Four numbers 0–255 with dots
Local MAC Address	12 hex characters (0–9, A–F)

Before Set Params sends anything

When every value is in range, **Set Params** opens **Restart the reader and save?** before anything is sent. It shows:

- Every setting you changed since **Read Device Info**, as old value → new value. With no changes it says so.
- A warning if **Plat IP** is a host name rather than a numeric IP address, or if a server address has no port.
- That the reader **restarts** – tag reading pauses for about 30 seconds and the Bluetooth link drops – and that tag reads waiting in its memory are deleted, with the **Total ID in Buffer** count when the app has read it.
- **Save and restart** sends the settings; **Cancel** sends nothing; **Undo my changes** puts the reader's own values back in the tabs.

When the reader accepts, the app confirms that it is restarting. Wait for it to come back, reconnect and tap **Read Device Info**.

What the app remembers

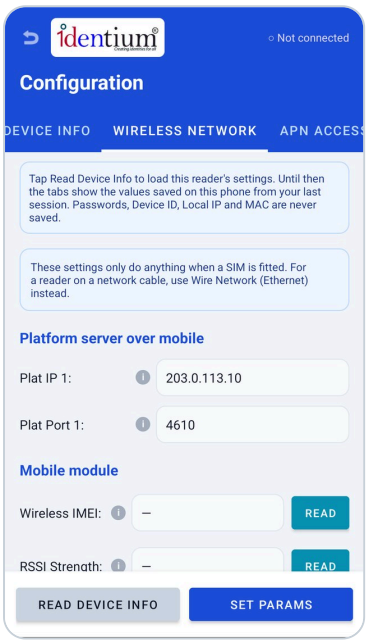
The app keeps your settings form on the phone, so closing the app does not lose your work. When you reopen it, the tabs show the values from your last session until you tap **Read Device Info**. Reading a reader shows its own settings but keeps any change you typed and have not yet saved; **Set Params** lists those changes. The app never stores a password, the **Device ID**, **Local IP** or **MAC address** – those belong to one reader – and a connection to a different reader always starts from that reader's own settings.

07/ Connect the Reader to Your Server

The reader is the one that dials out: over its data SIM it opens a TCP connection to your server's IP address and port, and sends every tag read over it. Your server therefore needs a **public IP address** that the reader can reach from the mobile network. All the server settings are on the **Wireless Network** tab. Fit the SIM card first (section 03).

CAUTION

Set Params deletes tag reads still waiting in the reader. Check **Total ID in Buffer** on Device Info before you save new server settings (see section 06).



Wireless Network – a server address and port typed in an earlier session, kept by the app (documentation address); no reader connected

Point the reader at your server

The blue box at the top of the tab is a reminder that these settings need a SIM card. Its **Wire Network** hint is for readers on a network cable; set the F529 up over mobile data as below.

1. Tap **Read Device Info**, then open **Wireless Network**. Enter your server's public **numeric** IP address in **Plat IP 1** and its reader port in **Plat Port 1**. A blank port is not sent: the reader keeps the port it already has.
2. Tap **Read** next to **RSSI Strength**. The mobile signal runs from 0 to 31; below about 10 the link is unreliable, and 99 means no signal.
3. If your operator gave you an APN, open **APN Access**, enter the **APN Name** (and user name and password if supplied), tick **Apply these APN settings** and tap **Set APN**. APN settings are saved by their own button – **Set Params** does not send them – and take effect after the reader restarts.
4. Tap **Set Params**, check the list of changes and the restart warning, then tap **Save and restart**. Wait about 30 seconds, reconnect and tap **Read Device Info**. **Network Status** on Device Info should now show **Wireless connected**.

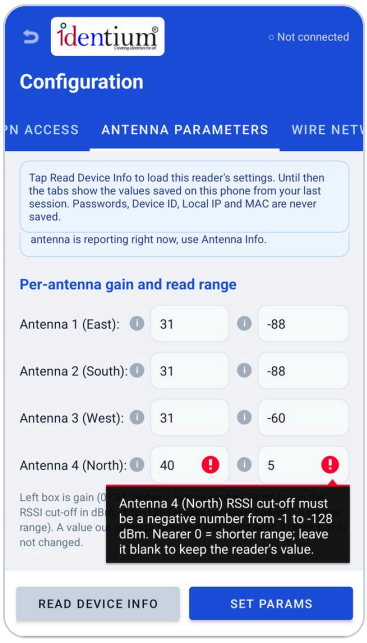
CAUTION

The port must be the server's **reader listener**, not the port the website runs on. On the Identium Active Reader platform it is the TCP port shown on the Reader Management page – **4610** by default. A reader pointed at the web port looks connected but its tags never arrive. Enter the server as a numeric IP address; **Set Params** warns you if you type a host name.

TIP

Before you leave site, change the reader's Bluetooth password: on **Wireless Network**, leave **Old Password** blank if the reader still has its factory password (or enter the current one), enter an 8-character new one under **Bluetooth password**, then tap **Set**. Write it down. If the password is lost, the reader has to be returned to Identium for a reset.

08/ Antennas and Read Range



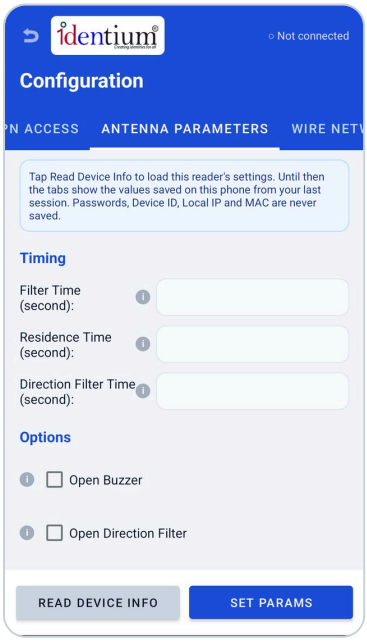
Antenna Parameters – a gain of 40 and a cut-off of 5 on antenna 4 are marked in red; no reader connected

Antenna Parameters shows the settings stored in the reader, one row per antenna. The right-hand box of each row is the read-range control: an **RSSI cut-off in dBm**. The antenna ignores any tag that arrives weaker than this value. Always enter a negative number from −1 to −128 – 0 or a positive value turns red and is not sent. **More negative = longer range; nearer 0 = shorter range.** The default is −88 dBm.

RSSI cut-off	Range	Typical use
−90 dBm or lower	Maximum – every tag the reader can hear	Wide-area presence, large yard
−70 dBm	Medium	General tracking
−50 dBm	Short – only nearby tags	Gate, lane or doorway
−40 dBm	Very short – tags right at the antenna	Single-point check-in

Starting points only – real distances depend on the tag, mounting height and site. Fine-tune with the Tag Scanner.

- Each antenna is set on its own, so a side facing a gate can be short while a side facing the yard stays long.
- The left-hand box is the antenna gain (0–31; the app refuses anything else). Leave it at the factory value and use the cut-off to set range.



Antenna Parameters, lower part – no reader connected

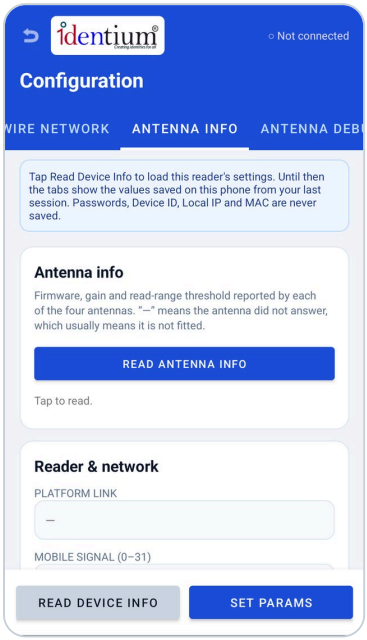
Timing and options

- **Filter Time (second)** – the same tag is reported only once within this time (0 to 65535 s). Raise it to cut repeat reports from a tag that stays in front of the reader; lower it for faster repeats.
- **Residence Time (second)** – how long the reader keeps remembering a tag after it stops hearing it. Enter 0, or a value from 60 to 65535.
- **Open Buzzer** – beeps on each read, on readers fitted with a buzzer. Handy while installing.
- **Direction Filter** settings – leave as set at the factory unless Identium advises a change.

Tap **Set Params** to save. Then check the result with the Tag Scanner (section 10).

09/ Check the Antennas

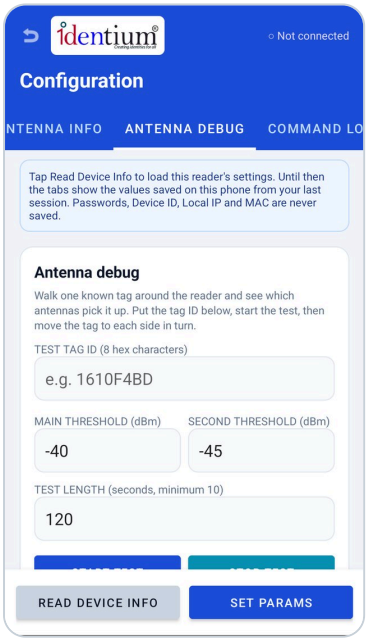
Run these checks after installation and whenever a side of the reader seems to miss tags. Keep one known, working tag in your hand.



Antenna Info – no reader connected

Antenna Info

Tap **Read antenna info** at the top of the tab to read what each of the four antennas reports: firmware version, gain and read-range threshold. An antenna that does not answer shows firmware **not fitted**, with gain and threshold **–**. Below, **Platform link** shows whether the reader is connected to your server, **Mobile signal** the SIM signal (0–31) and **Reader mode** whether the reader is in normal or testing mode.



Antenna Debug – no reader connected

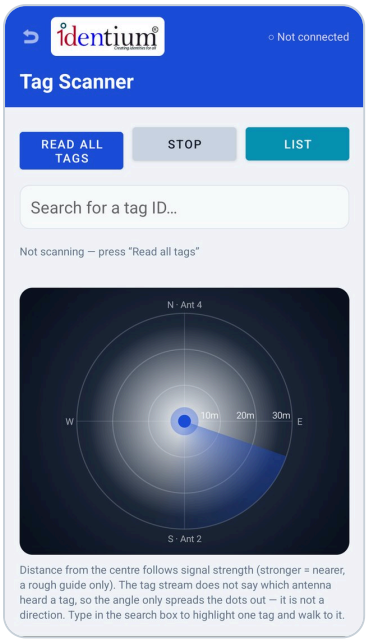
Antenna Debug – walk-round test

1. Enter the test tag's ID – 8 hex characters, as shown in the Tag Scanner list – in **Test tag ID**.
2. Leave **Main threshold** (–40 dBm), **Second threshold** (–45 dBm) and **Test length** (120 s) as they are unless support asks otherwise.
3. Tap **Start test**. Walk the tag slowly round the reader, stopping in front of each side in turn.
4. Watch the four antenna rows. Each row shows a **main** and a **second** result and turns green when either of them shows **seen**. Use the green row to confirm which physical side is East, South, West and North.
5. The tab ends with **Test passed – all antennas saw the tag** or tells you the tag was not seen on every antenna. Tap **Stop test** to end early.

CAUTION

The reader does not report tags to your server while it is in test mode. The app stops the test when you tap **Stop test** or leave the tab; check that **Reader mode** on Antenna Info is back to normal before you leave site.

10/ Watch Tags Live – Tag Scanner



Tag Scanner, map view – no reader connected

The Tag Scanner shows the tags the connected reader is hearing right now – the quickest way to prove an installation before you leave site.

1. On the home screen tap **Tag Scanner**, then **Read all tags**.
2. Each row shows the tag ID, how many times it has been seen, its signal in dBm and a rough distance figure worked out from the signal. The strongest tags sort to the top. The signal turns green above −60 dBm, amber down to −75 dBm and red below that.
3. Type in **Search for a tag ID…** to follow one tag – useful for finding a single asset.
4. Tap **Map** to see the tags around the reader, and **List** to go back. Tap **Stop** when you are done.

Reading the map

The reader sits at the centre and each tag is a dot. A dot's distance from the centre follows the signal at which the reader hears it: the stronger the signal, the nearer the centre. The position around the circle only spreads the dots out, as the note under the map says; to find which side of the reader a tag is on, use **Antenna Debug** (section 09) or the antenna number your server receives with every read (section 11). A searched tag is highlighted while the others stay visible, and its signal rises as the tagged item moves closer to the reader.

> **NOTE**
> The distance figures and the map rings are a "stronger = nearer" guide, not a measurement in metres. The app's estimate stops at about 17 m, so distant tags all show at about the same place. For site-wide positions, combine several readers in your tracking software.

Before you leave site

- **Network Status** on Device Info shows **Wireless connected** (section 07), and **Total ID in Buffer** stays near zero.
- The **Device ID** matches the one registered for this reader on your server (section 06).
- Every antenna passed **Antenna Debug**, and **Reader mode** on Antenna Info is back to normal (section 09).
- A tag held in front of each side of the reader shows up in the Tag Scanner.
- The Device ID, server settings and new Bluetooth password are written down (section 07).

11 / For Developers: SDK Quick Start

The **Active Reader SDK** lets your own server receive the F529's tag reads. Download **Active Reader – SDK & Demo** (`Identium-F529-Active-Reader-SDK-1.0.zip`) from **www.identiumone.com/resourcehub/**. It has five parts:

Part	What it does
Reader library	Folder `1-Reader-Library/`. Decodes every packet the reader sends and builds the replies. Prebuilt for Windows, 32-bit (x86) and 64-bit (x64), with its C header `RFID_READER_DLL.h`; for Linux, build it from the library source with `make`.
Server demo	Folder `2-Server-Demo-Windows/`: `Identium-F529-Server-Demo.exe`, a ready-to-run Windows program that accepts the reader's connection and shows its tag reads. Use it to prove the link first.
Sample servers	Folder `3-Sample-Servers/`: a Java (Eclipse) project using the library via JNA (`Java-JNA/`) and the C++ (Visual Studio) source of the server demo (`CPP-Windows/`). Both use port 4600 – set it to your Plat Port.
Library source	Folder `4-Library-Source/`: C source of the library, with its Visual Studio solution and Linux Makefile. Link your server against the prebuilt Windows library, or run `make` to build the Linux library.
Documents	Folder `5-Docs/`: `Identium-F529-Reader-Library-API-Guide.pdf` – every library function, the JSON it returns and the error codes – plus the reader-platform and Bluetooth/serial protocols.

Run the demo in five minutes

1. Use a PC with a fixed public IP address that the reader can reach over mobile data (section 07).
2. In the app, tap **Read Device Info**, open **Wireless Network**, enter the PC's public IP as **Plat IP 1** and **4600** (the demo's default) as **Plat Port 1**, then tap **Set Params**.
3. On the PC, start `Identium-F529-Server-Demo.exe` (keep `RFID_READER_DLL.dll` and `setting.ini` next to it). It opens with the PC's own IP address and port 4600 already filled in; keep the port the same as the reader's Plat Port 1 and click **Start**.
4. Hold a tag near the reader. Its reads appear in the demo window. If nothing arrives, allow the demo through the Windows firewall.

Integrate in your own server

1. Open a TCP listener on the reader's Plat Port. The reader is the client: it connects to you and keeps the connection open. Any free port works (the demo uses 4600, the Identium Active Reader platform 4610) as long as both sides agree.
2. For each packet received, call `RFID_ReadCmd()`. It returns the command code and a JSON header with `device` (the reader's Device ID), `seqno` and the firmware `version`.
3. Answer every packet on the same socket: **0x0008** register → `RFID_Register()`; **0x0001** login → `RFID_Login()`; **0x0003** heartbeat → `RFID_Heartbeat()`; **0x0004** tag data → `RFID_DataRecord()`. Replies are at most 250 bytes. The address you pass to `RFID_Register()` is the server the reader logs in to next – normally your own, as the reader reaches it.
4. For **0x0004** packets also call `RFID_TagDataParse()`. It returns a JSON array with `tagid`, `tagtype`, `tagdata`, `antenna` (1 East, 2 South, 3 West, 4 North), `intensity` (RSSI in dBm), `entry`, `staying`, `alarm`, `status` and `time`. Give it at least 10 KB: the library does not check the buffer size.

5 Negative return values are errors: −101 parameter error, −102 CRC check failed, −103 JSON parsing failed.

```
#include "RFID_READER_DLL.h"

unsigned char tx[250];
char json[51200], addr[64];                /* 50 KB, as in the Java sample */
int jlen = 0, out = 0;

/* server_ip, listen_port: the same values as the reader's Plat IP and Plat Port */
snprintf(addr, sizeof addr, "{\"ip\":\"%s\",\"port\":%d}", server_ip, listen_port);

int cmd = RFID_ReadCmd(rx, n, json, &jlen);   /* rx, n: bytes just received */
switch (cmd) {
case 0x0008: out = RFID_Register(rx, n, 0x00, addr, tx); break;   /* register  */
case 0x0001: out = RFID_Login(rx, n, 0x00, tx);          break;   /* login     */
case 0x0003: out = RFID_Heartbeat(rx, n, 0x00, tx);      break;   /* heartbeat */
case 0x0004:                                                      /* tag data  */
    out = RFID_DataRecord(rx, n, tx);
    RFID_TagDataParse(rx, n, json, &jlen);     /* {"TAG":[{...}]} */
    break;
}
if (out > 0) send(sock, (const char *)tx, out, 0);
```

Handling one packet from the reader (C, after the pattern of the Java sample)

```
{"TAG":[{"device":"202509031010012","tagid":"16100001","tlvtype":"0x8B01",
  "tagtype":"20","tagdata":"36.2","antenna":1,"intensity":-78,
  "entry":0,"staying":0,"alarm":0,"status":"00000000",
  "time":"2026-10-27 15:20:40"}]}
```

One tag read as returned by RFID_TagDataParse()

Writing your own parser? Frames start with `55 AA`, then a header (command, sequence number, Device ID), TLV records (tag reads are TLV `0x8B01`) and a CRC16-CCITT check. The full frame format is in `5-Docs/Identium-F529-Reader-Platform-Protocol.pdf`.

12/ Precautions

- Power the reader only from the supplied 12 V 2 A adapter or another regulated 9–12 V DC supply.
- The reader housing is weatherproof (IP65); the power adapter is not. Keep the adapter dry and protected.
- Tie the adapter's DC plug to the reader's DC jack with a nylon cable tie so wind and vibration cannot pull them apart.
- Keep the housing closed. Opening it breaks the weather seal.
- Clean the housing with a damp cloth. Strong chemicals and detergents corrode the plastic.
- Operate the reader between −20 °C and +60 °C.
- The reader sends its tag reads over mobile data. Choose a SIM data plan that suits the number of tags you expect.
- Use a proper ladder or lift when working at height, and take care with the mains supply.
- Record the reader's Device ID, server settings and Bluetooth password once the reader is commissioned.

13/ Parameters

Model	F529
Type	2.4 GHz ultra-long-range integrated active RFID reader (outdoor base station)
Frequency	2.4 GHz ISM band; working frequency 2440 MHz
Modulation / data rate	GFSK / 1 Mbit/s
Antennas	Four integrated dual-polarised directional antennas, one per side; usable as omnidirectional or directional
Antenna gain	12 dBi
Receive sensitivity	−90 dBm maximum
Read range	Up to 400 m, directional – depends on tag type, terrain, buildings and mounting height
Direction finding	Reports which of the four sides a tag is on
Network interface	TCP/IP over mobile data (SIM card)
Configuration	Bluetooth, from the Identium Active Reader app. Remote parameter set-up and firmware upgrade are part of the reader protocol and need a server that implements them
Protocol	Identium reader protocol – library, API guide and protocol document in the Active Reader SDK
Ingress protection	IP65 – rainproof
Lightning protection	≥ 4000 V
Wind resistance	Rated for wind up to Beaufort force 12
Housing	ABS, high-temperature resistant, white
Dimensions	230.5 × 106 × 106 mm
Weight	2 kg
Power	9–12 V DC input, 300 mA; 12 V 2 A adapter supplied
Operating temperature	−20 °C to +60 °C
Storage temperature	−45 °C to +85 °C
Compatible tags	Identium 2.4 GHz active tags (sold separately; confirm the model with Identium)

Specifications are indicative. Confirm coverage for your site with a survey; for short indoor read zones see the F530 indoor active reader.

14/ Troubleshooting

Problem	What to do
App not installed when you install 2.1	Version 2.0 is still on the phone, and 2.1 is signed with a new key. Uninstall **Identium Reader** 2.0, then install 2.1 – the reader keeps its settings.
Reader not listed in **Connect Reader**	Check the reader has power and stand within a few metres. Turn the phone's Bluetooth off and on. On Android 11 and older switch Location on. Tap **Show all devices**, then **Rescan**.
Connection fails or the reader is locked	Disconnect any other phone. Forget the reader in Android's Bluetooth settings and retry. Leave the password blank, enter the site password, or tap **Try defaults**. If Android asks for a pairing PIN, contact Identium support.
New settings did not stick	Tap **Read Device Info** before **Set Params**. If Set Params lists settings to fix, correct the values marked in red. After **Save and restart**, wait about 30 seconds, reconnect and read again. APN settings need **Set APN** and a restart.
Reader is online but tags never reach the server	Check **Network Status** and **Total ID in Buffer** on Device Info. A buffer count that keeps climbing means the reader cannot reach the server: check **Plat IP 1** / **Plat Port 1** on Wireless Network, use the server's numeric public IP and the reader port (not the website port). Saving the fix with **Set Params** deletes the waiting reads – note the count first.
Server does not file the reader's tags	The **Device ID** in the reader must match the one registered on the server exactly.
No mobile link, or it keeps dropping	Check the SIM tray is pushed fully home (section 03) and the SIM has an active data plan. Read **RSSI Strength**: below about 10 the link is unreliable, 99 means no signal. Check the APN, or move the reader.
Tags from the next area are read, or wanted tags missed	On **Antenna Parameters**, raise that antenna's RSSI cut-off towards 0 (keep it negative) to shorten its range, or lower it (more negative) to lengthen it. Check with the Tag Scanner. For repeat reports of one tag, increase **Filter Time**.
Antenna **not fitted** or fails Antenna Debug	Repeat the test with a second tag. If the same antenna fails again, copy the **Command Log** and contact Identium support.

15/ 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.

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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.