



PandwaRF Marauder

Product description



Description

PandwaRF Marauder

Marauder has been developed for activities requiring a discreet capture of RF data, typically keypress of keyfobs (alarms, cars, gate openers...).

The Marauder can be set up to automatically listen and record all RF data on pre-configured frequencies. Captured data is automatically demodulated and saved internally in the product's internal memory. RF data can be replayed when needed using the dedicated Android application.

Once started, the **Marauder is entirely autonomous**.

PandwaRF Marauder Basic

Not connected to smartphone

Marauder doesn't require a smartphone to work. Once configured, it can be placed within the target device range and record RF binary data. RF setup/capture/replay can be done using built-in buttons or using the Android application (preferred method). Device can be set up to automatically record all RF data on preconfigured frequencies. Data is saved internally and can be replayed when needed. Using this option the product becomes entirely autonomous.

Dedicated Android application

The Marauder includes a dedicated Android application with a simple interface, focused on autonomous listening. All you need to do is set the frequency to listen and the Marauder will start capturing.

Export captured data into phone storage

Captured data can be exported to a JSON file in the phone's internal storage.

Replay from the same Marauder

When you retrieve your Marauder, it synchronizes with the app and captured data is saved on the smartphone. Data can be replayed when needed or exported for analysis.

PandwaRF Marauder Standard

Timestamps of each capture

Each data includes the date and time of the capture. It allows user to easily distinguish between captures of interest and captures that are out of scope.

Multi frequency

The Marauder can be set up to listen and record data on one or 2 pre-configured frequencies, based on the variant.

Note: when configured to scan 2 frequencies or a band, the Marauder Standard/Ultimate alternatively scans (very fast) the different frequencies. If it detects a signal then Marauder starts recording. So there

is a small chance to **miss the capture** if the data is being transmitted while Marauder is busy scanning another frequency.

RF capture Timestamps

For each recorded RF capture, the Marauder Standard also stores a timestamp to precisely identify when the capture was done (1s precision). When synchronized, the application displays the date and time of each RF capture, making it easy to keep track of the stored RF data.

Replay captured data on any PandwaRF Rogue

Data can be transferred from a Marauder to another PandwaRF Rogue version (Pro or Gov), where it can be replayed. This allows better teamwork, where one user records the data and sends it to other users for replaying captures.

PandwaRF Marauder Ultimate

Rolling code support

Marauder Ultimate integrates with **Kaiju - Rolling code analyzer & generator (rolling.pandwarf.com)**, to analyze the captured data and display rolling code information directly from the Android Application. Captured data can also be viewed directly on Kaiju web application. Marauder Ultimate includes support for **garage/gate openers rolling codes**. Optional support for cars can be purchased separately.

Model analysis

Marauder Ultimate includes a data processing feature. Using a powerful post-processing algorithm and an integrated device database, it can automatically **analyze the captured RF data and find what brand/model the data is being captured from**. This allows the attacker to clone and impersonate the target's remote control faster and effortlessly.

Filter captured data by device model/brand

Captured data can then be organized by time, device model and brand (and several other filters), making it easy to filter out relevant RF captures.

Compatible with the Rogue Gov Model searcher

Marauder Ultimate is fully compatible with the Rogue Gov Model searcher.

After export, the data captured autonomously by the Marauder can be imported into a Rogue Gov. The Rogue Gov will identify the keyfob (ARM/DISARM/OPEN/...) action corresponding to the data and, using its Function Inversion feature, will be able to transform an "Alarm ARM" message into an "Alarm DISARM" message or vice versa.

This way a **single RF message captured from the alarm keyfob is enough to impersonate the target's device**.

Scan/connect without Android Location permission

On some Android phones and versions, Bluetooth Low Energy (BLE) scanning will only work if Location services are enabled on the device. This is a requirement from Google. If you don't grant location permission to the app, the scan may not find any BLE device.

We are aware that this is not convenient for user discretion so the **Marauder Android application includes a scanning mode** that bypasses completely the need for the user to have **GPS enabled**.

Customizable device name

To be more discreet and not alert the potential target, the Marauder device name can be changed from the application to a more common Bluetooth Low Energy device name, at user's choice.

Stealth BLE advertizing

To be even **more discreet**, Marauder Ultimate includes the possibility to **de-activate the Bluetooth Low Energy advertising**. This makes the Marauder Ultimate completely invisible wrt RF transmission.

3-year warranty

This version of Marauder includes a 3-years warranty from the date when the product is shipped (instead of our standard 2-years warranty).

Fast replacement

Should you encounter an issue with PandwaRF Marauder, your defective unit (due to electronic or component problems) will be replaced within two weeks from reporting the issue and returning the defective product.

Technical support

The purchase includes priority technical support to make sure you are getting the most out of PandwaRF Marauder. We're here to help!

Note on autonomy:

Continuously listening for RF data on different frequencies is battery consuming and according to the configuration and time spent listening, the Marauder can quickly exhaust its internal battery. An external power source (USB battery pack) can be required to extend the duration of the capture.

Note on variant availability:

PandwaRF **Marauder** can be purchased by anybody.

Product feature comparison: PandwaRF Marauder

Marauder	Basic	Standard	Ultimate
Ideal for	Penetration testing	Security professionals	Police & LEA
Dedicated Android application	X	X	X
Data capture			
Multi frequency	1	2	2
Timestamps of each capture		X	X
Export			
Export captured data into phone storage	X	X	X
Data replay			
Replay from the same Marauder	X	X	X
Replay captured data on Rogue Pro		X	X
Replay captured data on Rogue Gov		X	X
RX data analysis			
Rolling code support			X
Compatible with the Rogue Gov Model searcher			X
Model analysis (with Rogue Gov)			X
Filter captured data by device model/brand (*)			X
Memory size	256	512	512-1024
Scan/connect without Android Location permission			X
Customizable device name			X
LED deactivated (*)			X
Stealth BLE advertizing			X
3-year warranty			X
Fast replacement			X
Technical support			X

*: Under development. 1Q2021