

# UL Remote Android Reader

## Overview of UL Remote Android Reader

UL Remote Android Reader is an Android application that allows users to read and verify UICC card or eUICC profile content from inaccessible and non-removable UICC cards or eUICCs.

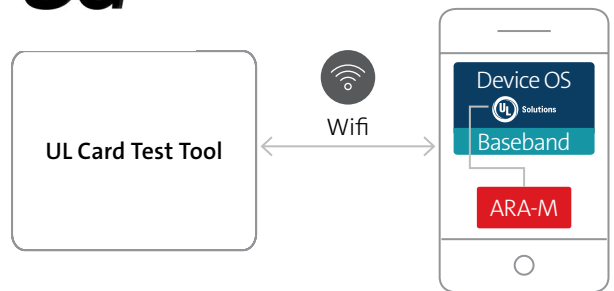
## Benefits

Use UL Remote Android Reader in conjunction with the following UL Card Test Tools; UL Mobile Card Test Platform, UL Mobile Card Profile Tester or UL Mobile eUICC Profile Tester. It acts as a proxy for sending commands from the UL Card Test Tool running on the test PC to UL Remote Android Reader application installed on the Android device.

## Features

UL Remote Android Reader provides a companion test application for Android devices:

- Additional profile element – Profiles under test must have an ARA-M or ARA-C application profile element to gain permission from the Secure Element Access Control (SEAC) on the Secure Element. UL provides an example SEAC rule that users add to the ARA application on the UICC or to the ASN.1 profile before loading it into the eUICC.
- Remote Android Reader Application – an Android application is provided as an apk file by UL Solutions and is installed on the Android handset under test to establish the secure Wi-Fi connection.
- Secure Wi-Fi connection – The UL Card Test Tools connect to UL Remote Android Reader application using a secure TLS connection via Wi-Fi.
- Card content and profile verification – UL Card Test Tools can perform their normal testing remotely to read and verify card or enabled profile content on a secure element.



## Key benefits

- Remote card content testing for physically inaccessible SIMs, UICCs or non-removable embedded Secure Elements (eSE) and eUICCs
- Secure TLS connection from UL Remote Android Reader to the UL Card Test Tools
- Runs on all versions of Android v4.4 (KitKat) and above
- Supports Secure Channel Protocol interfaces to verify SCP02 and SCP03 keysets in applications and GlobalPlatform Security Domains
- Save logs of all testing locally on the Android handset and remotely on the test PC
- Live status updates in the UI for remote connectivity and the number of commands received and responses sent

## Specifications

### Command and response APDUs

All command and response APDUs received and sent from the UL Card Test Tools to the SIM/UICC/eUICC via UL Remote Android Reader comply with ETSI 102 221.

### Secure Element requirements

- Support for SEAC on the Secure Element to allow UL Remote Android Reader application to communicate with the Secure Element
- The Access Rule Application (ARA-C or ARA-M) of the Secure Element requires one of the following rules:
  - Allow all
  - Allow the hash rule for the app
- Support for multiple Open Mobile-API (OM-API) readers, e.g., eSEs, UICC, etc.

### Installation requirements

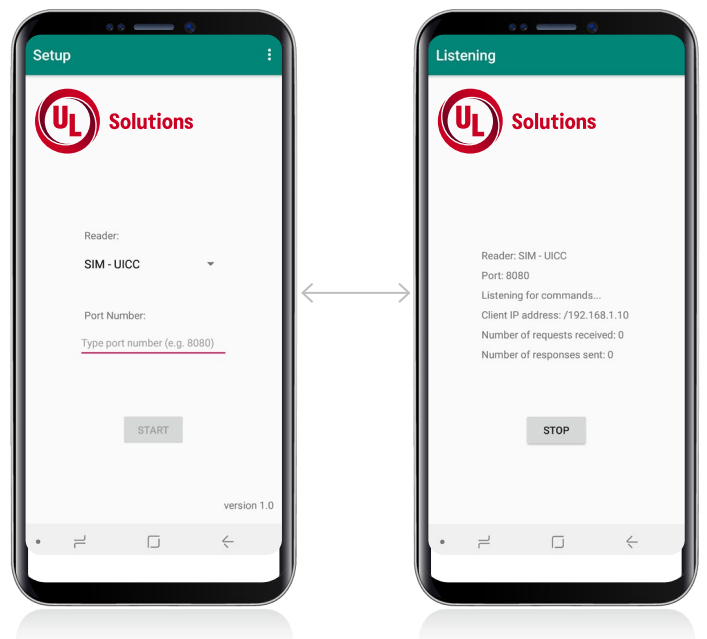
Users must install Android Debug Bridge (ADB) on the test PC and enable USB debugging on the test handset to allow the ADB to install UL Remote Android Reader .apk on the test handset.

### Test handset requirements

- Android v4.4 (KitKat) and above
- Wi-Fi support
- OM API support
- GlobalPlatform SE AC support
- SIM, UICC, eSE or eUICC inserted in the device

### UL Card Test Tools supported

- UL Mobile Card Test Platform
- UL Mobile Card Profile Tester
- UL Mobile eUICC Profile Tester



For more information, visit [UL.com/RAR](https://www.ul.com/RAR)



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