Kapsch 6C RFID Reader System User Guide

Kapsch 6C RFID Reader System - UG

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Change Notice

Rev #	Change Reason	Quality Control	Technical Writer/ Quality Assurance	Completed
1.0	Initial Version	Marco Rossi and Jaymin Patel	Carina Burns	11/27/2023
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Reference to the status- and version administration:

Status:

Draft	the document is being processed
Released	the document has been checked and released, it can only be modified if the version number is updated.
Final	the document is complete

Versions:

1.0, 1.1, etc.	"**Released**" versions
2.0	Accepted version with the status "**Final**"
2.1, 2.2, etc.	Minor revisions, supplements to version 2.0

Reference to the data classification	
Public	No restriction
Internal	Restricted to internal and external Kapsch employees (default)
Confidential	**Restricted to selected active directory and/or SharePoint groups,**
Secret	Restricted to selected employees, server encryption needed

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1 Introduction

This Kapsch 6C Radiofrequency Identification (RFID) Reader System User Guide provides instructions on assembling and using the reader system to read 6C tags.

1.1 Abbreviations

The following table contains a list of abbreviations used within this document.

Abbreviation	Description
AC/DC	Alternating Current/Direct Current
FCC	Federal Communications Commission
RFID	Radiofrequency Identification
TSL	Technology Solutions UK Ltd
USB	Universal Serial Bus

Table 1   Abbreviations

2 Kit Contents and Component Parts

2.1 Kit Contents

The kit *(Kapsch P/N: 480803070001)* contains:

Bluetooth UHF RFID Trigger Unit (Reader) (FCC Antenna) 2128P-AX1 *(Kapsch P/N: 484001320000)*

> Trigger Unit (Reader) Antenna
> Li-polymer Battery Pack – EasyPack XL 3.7V
> 2128P Bluetooth UHF RFID Reader Quick-Start Guide

Janam XT30 Mobile Computer Display Unit *(Kapsch P/N: 480803070501)*

> Janam XT30 Mobile Computer Display Unit
> Li ion Battery 3.8V
> AC/DC Power Adaptor Kit
> USB Data cable
> Janam XT30 Quick Start Guide

ePop-Loq Case for Janam Mobile Computer ATC-XT-01 *(Kapsch P/N: 484001271001)*

> ePop-Loq Case

Docking Cradle with Power Supply Unit and Mini USB Cable 2128-CRD-03-KIT *(Kapsch P/N: 484001321000)*

> Cradle
> Cradle Power supply with plug adaptors
> Data cable

2.2 TSL 2128P UHF Trigger Unit (Reader) Parts
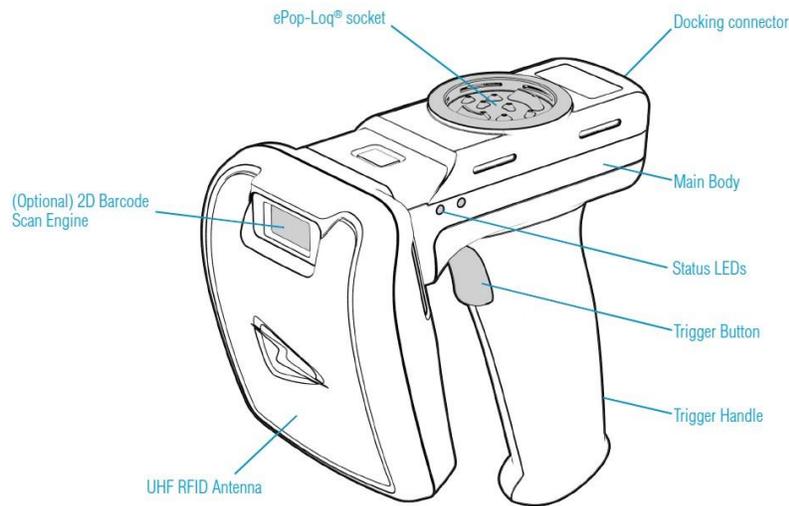
Figure 1   2128P UHF Trigger Unit Reader Parts

Note: This reader unit does not contain the optional 2D barcode scan engine.

2.3 Janam XT30 Mobile Computer Display Unit Parts

1. Barcode Scanner
2. Camera
3. 3.5mm Audio Jack
4. Touch Screen
5. Right Trigger
6. Power Key
7. Micro USB
8. Pogo Pin Connector
9. Volume Key
10. Left Trigger
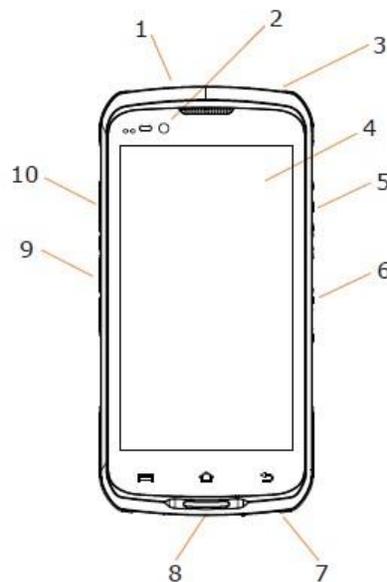
Figure 2   Janam XT30 Display Unit Parts Front

1. Camera
2. Speaker
3. SIM Card Slot
4. MicroSD Card Slot
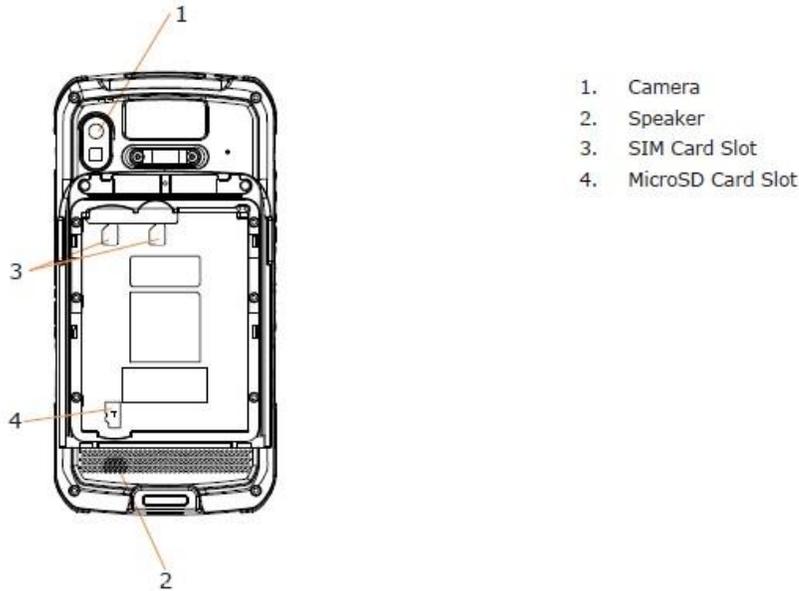
Figure 3   Janam XT30 Display Unit Parts Back Battery Removed

3   Kit Assembly Instructions

To assemble the RFID Reader system use the steps in the following subsections to: Insert the battery in the TSL 2128P Trigger Unit (Reader), insert the battery in the Janam XT30 Display Unit, connect the Trigger Unit and Display Unit, and charge the TSL 2128P.

3.1   Insert Battery in TSL 2128P Trigger Unit (Reader)

Basic Steps:

1. Remove the grip handle by pushing up on the handle release slider (Figure 4) and pushing the top of the unit forward (Figure 5).
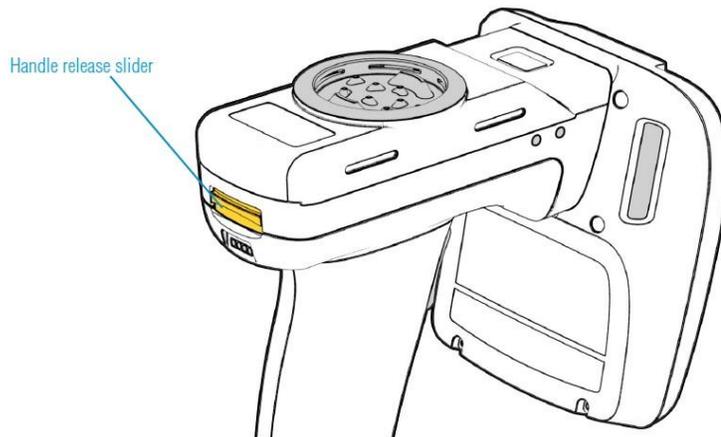
Figure 4   Trigger Unit Handle Release Slider
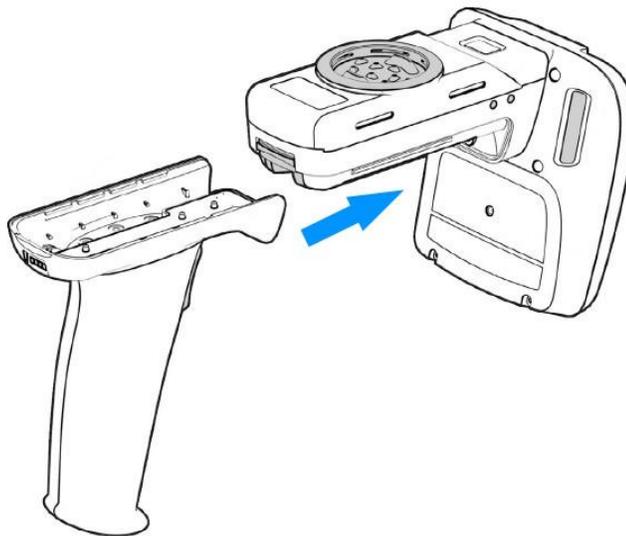
Figure 5   Slide Trigger Unit Handle Off

2.   Remove the Battery Cover (Figure 6).
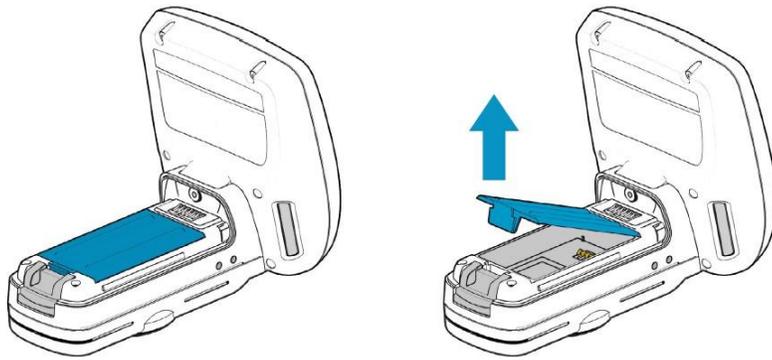
Figure 6   Remove Battery Cover

3.   Place the battery contacts down into the battery compartment (Figure 7 and Figure 8).

CAUTION!

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Figure 7   Trigger Unit Battery Placement
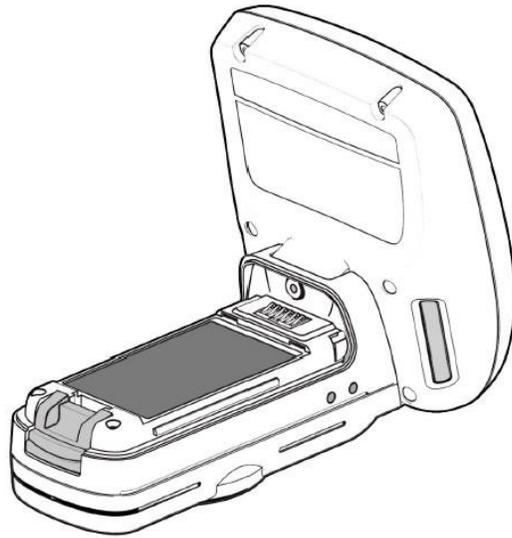
Figure 8   Battery in Position

4.   Replace the battery cover until it latches (Figure 9).
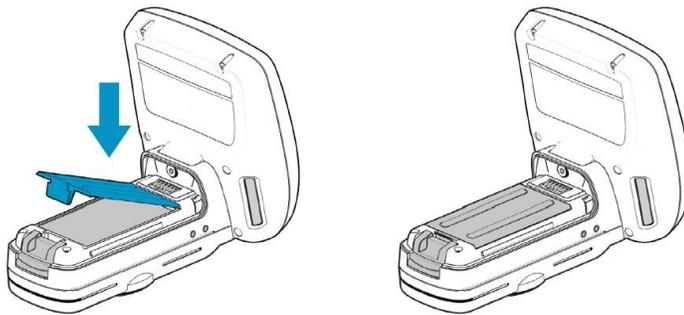
Figure 9   Replace Battery Door

5.   Slide the handle grip back onto the main unit (Figure 10).
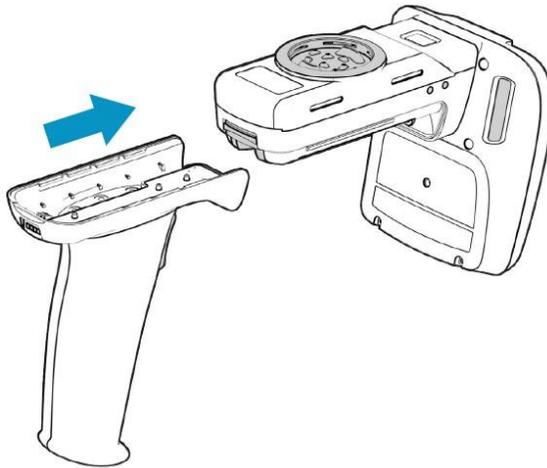
Figure 10   Slide Handle Grip On Main Unit

3.2   Charging TSL 2128P Trigger Unit (Reader)

The Trigger Unit should be fully charged before using the first time.

Basic Steps:

1.   Attach the correct wall adaptor to the power unit and plug power unit into the wall.

2.   Plug the other end of the power unit into the 5.2V socket on the docking station.

3.   Place the Trigger Unit into the docking station (Figure 11). The indicator lights on the reader flash to show the unit is charging:

> Orange short single slow flash - Battery charging with battery level less than 33%

> Orange short double flash - Battery charging with battery level less than or equal to 66%

> Orange short triple flash - Battery charging with battery level greater than 66%

> Orange constant - The reader is fully charged

Figure 11   Trigger Unit in Docking Station

3.3   Insert Battery in Janam XT30 Display Unit

Basic Steps:

1. To access the battery compartment, remove the hand strap by pulling down the plastic clip located on the bottom of the XT30 Display Unit (Figure 12).

Figure 12   Janam XT30 Display Unit Hand Strap Clip

2. Move both tabs on the battery cover to the unlock position and pull the cover away from the device (Figure 13).

Figure 13   Janam XT30 Display Unit Battery Tabs

3.   Position the battery so that the text "Insert this direction" is on the left side and snap into place (Figure 14).

Figure 14   Battery Placement

4. Replace the battery cover by positioning the bottom prongs first and snapping cover into place.

5. Move both tabs on the battery cover to the "lock" position.

3.4   Charging the Janam XT30 Display Unit

The Janam XT30 Display Unit will charge when connected to the Trigger Unit and placed in the docking station as described in Section 3.2. If the Janam XT30 Display Unit is not connected to the Trigger Unit it can be charged by plugging the AC/DC power adaptor provided in the kit into the micro USB port on the bottom of the device (Figure 15) and plugging the power adaptor into a power socket.

Figure 15   Janam XT30 Display Unit Micro USB Port

3.5   Connect Janam XT30 Display Unit to TSL 2128P Trigger Unit (Reader)

Basic Steps:

1. Remove the Janam XT30 Display Unit hand strap by pulling down the plastic clip located on the bottom of the XT30 Display Unit (Figure 12).

2. Slide the Janam XT30 Display Unit into the ePop-Loq case (Figure 16).
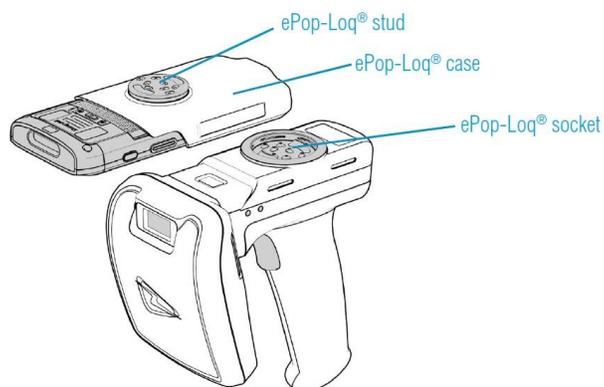
Figure 16   ePop-Loq Parts

3. Align the ePop-Loq stud with the ePop-Loq socket with the front of the Janam XT30 Display Unit pointing towards the antenna and press the two parts together until they click into place. The assembly is completed (Figure 18)
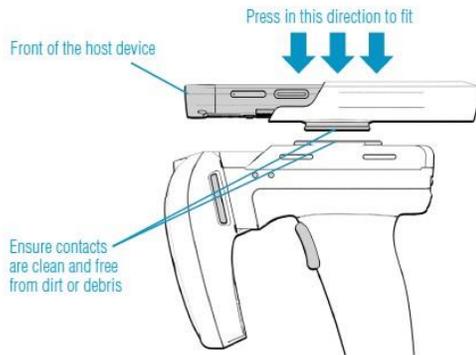
Figure 17   Connect ePop-Loq

Figure 18   Complete Assembly

4   Reading Tags

Basic Steps:

1.   After assembly is complete (see Section 3) press the power button on the Janam XT30 Display Unit. Swipe up from the bottom to unlock the Janam XT30 Display Unit. Start Kapsch App. (Figure 19).
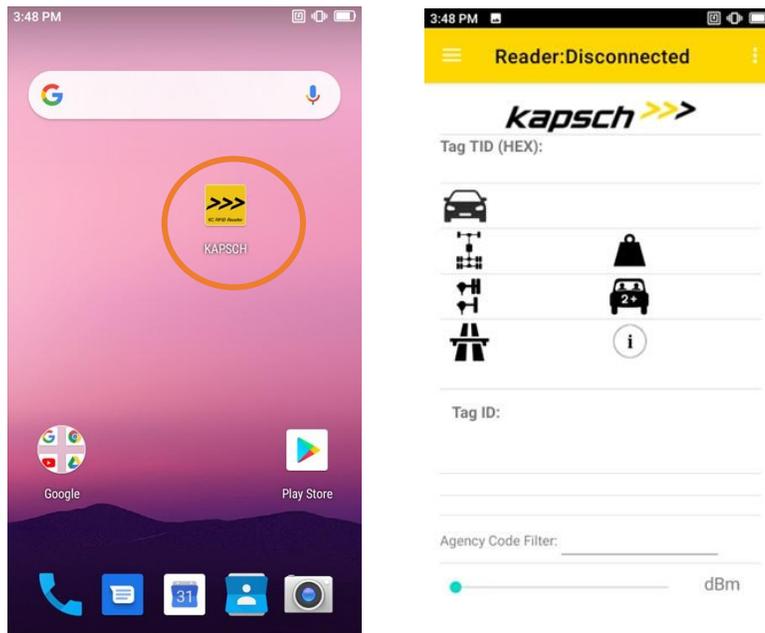
Figure 19 Kapsch 6C RFID Reader Application

2.   Press yellow trigger button, USB reader permission prompt, click OK to connect the 6C RFID Reader. Reader serial number is shown at the top of the window.
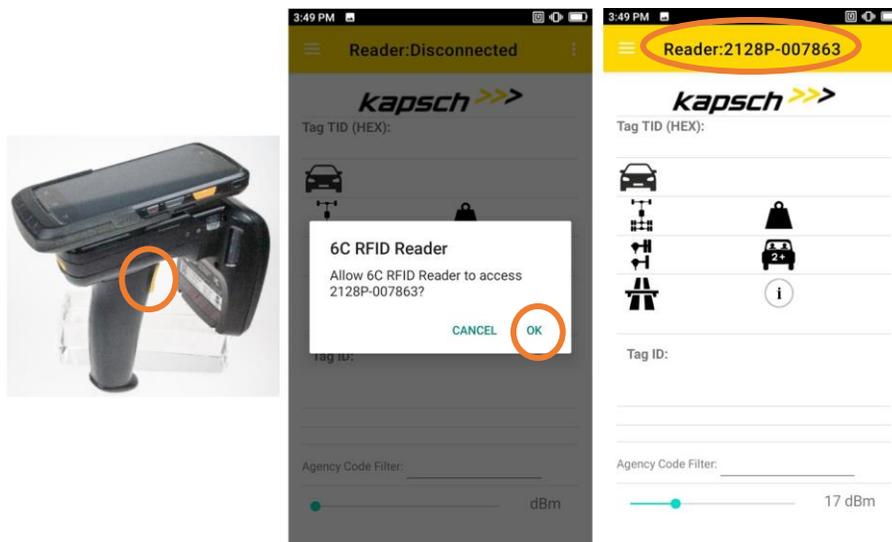
Figure 20   Kapsch 6C RFID Reader Application Launched

3. Point the reader at a 6C tag and press the trigger. The following tag data is displayed in the application (Figure 211):

Figure 21 Read tag data

Note: If it is required to read 6C tags issued by a specific Agency, ensure the Agency ID is entered into the Agency Code Filter section at the bottom of the app prior to reading tags. Touch the Agency Code Filter field and fill in the Agency ID (**Error! Reference source not found.**).

Figure 21   Agency Code Filter

4. If the display unit goes to power save (screen off) mode, press the yellow trigger button, USB reader permission prompt, click OK to connect the 6C RFID Reader

5. If you need to exit the Kapsch 6C RFID reader app, click the Home button, the reader is sent to sleep mode and the status LED blue light turns off.

Note: When yellow trigger button does not connect the Reader to the app, perform one of the followings:
1) Put the unit back on the docking station;
2) Unplug XT-30 from ePop-Log and plug back to connect;
Either step will reset the reader.

Figure 22   Reader Status LED

6. To view information about the Kapsch 6C RFID Reader app, including app version, battery level of trigger unit and screen, link to download the manual, and license information, select the **Menu** icon, select **About** in the menu (Figure 23). The About screen is displayed (Figure 24). The settings menu can be used to setup the default RF power. It is recommend to select the Reader Sleep option when in power save mode (Figure 24).
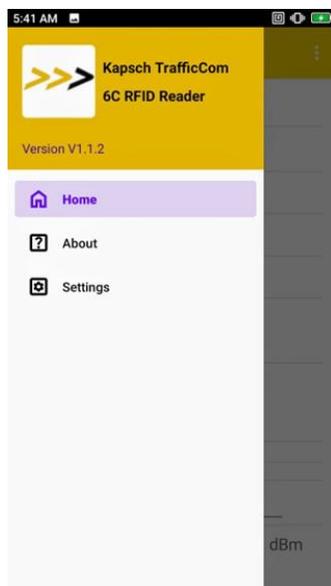
Figure 23   6C RFID Reader App Menu
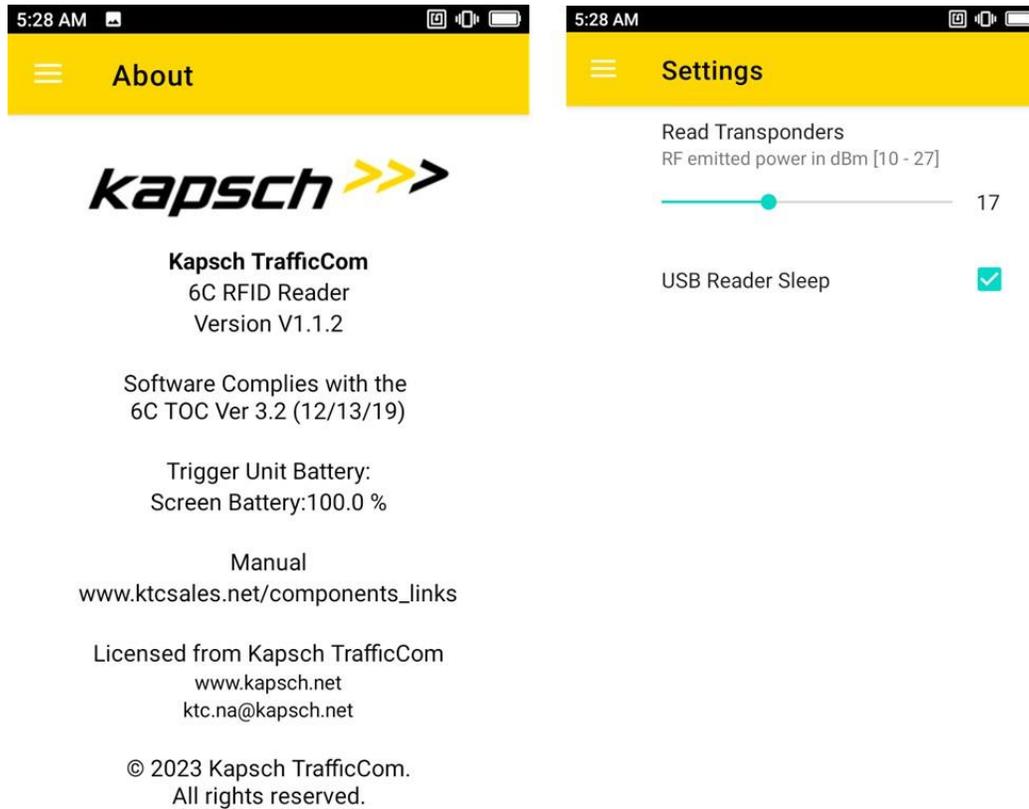
Figure 24   6C RFID Reader App About and Settings Screen

5   Troubleshooting

Use the following subsections to troubleshoot issues encountered with the RFID Reader System.

5.1   Reader Disconnected

Possible Issue	Solution
Janam XT30 Display Unit might not be pushed all the way into the ePop-Loq case	Push the Janam XT30 Display Unit fully into the ePop-Loq case
Reader status blue LED on while not connect to XT30	1) Put the reader back to docking station or 2) Unplug XT-30 from ePop-Log and plug it back
Connections on Janam XT30 Display Unit or ePop-Loq case are dirty or damaged	Inspect and clean connection points
Reader not turned on	Press yellow trigger to turn on

Possible Issue	Solution
Lost Communication	Restart Janam XT30 Display Unit
Reader battery low	Charge reader using docking station

Table 2   Reader Disconnected Troubleshooting

5.2   Tag Reading Issues

Possible Issue	Solution
Tag not being read	From the Settings page adjust the RF power level slider to a higher level. Ensure Trigger unit is connected.
Not reading the correct tag	From the Settings page adjust the RF power level slider to a lower level and ensure that other tags are away from reading areas.
Invalid Agency! error	Ensure that the Agency Code Filter is empty or is set correctly.

Table 3   Tag Reading Issues Troubleshooting

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