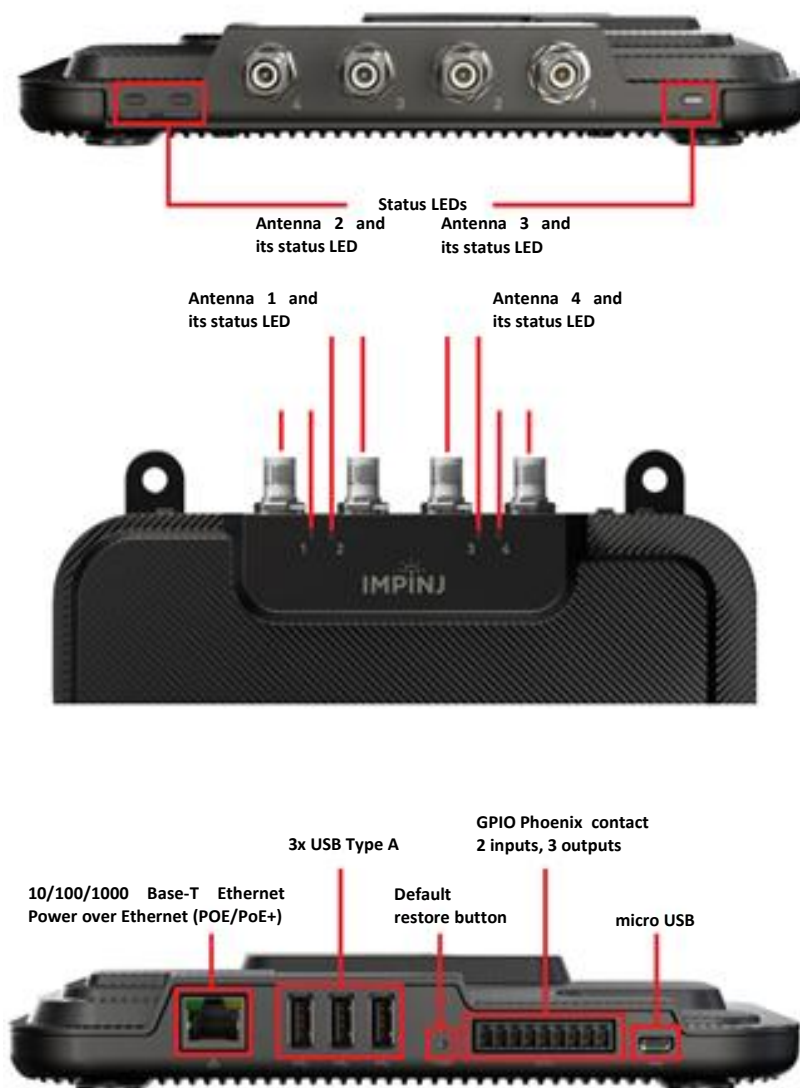


Quick Start Guide for R-UHF-R700 reader

This guide explains how to start integrating the UHF RFID reader in your laundry.

A. Reader connectors and indicators

Refer to the following pictures to identify reader's connectors and LED indicators.



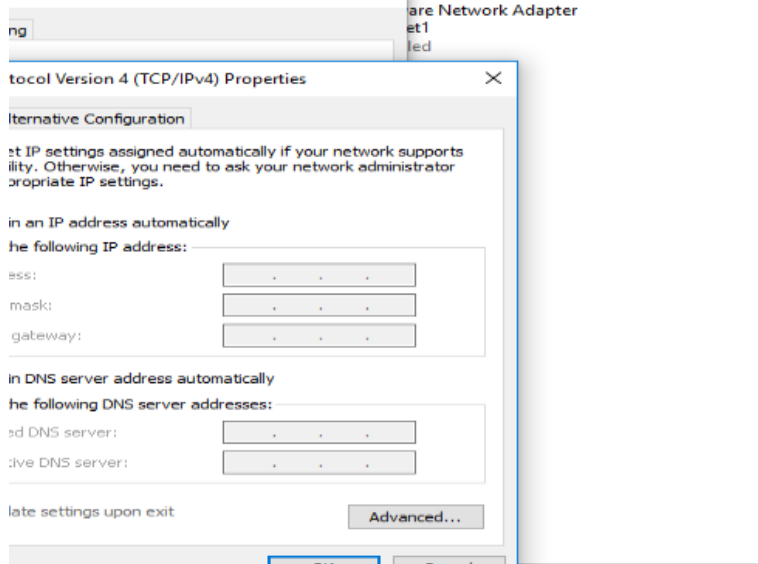
B. Power the RFID reader

The R700 reader is powered exclusively through Power over Ethernet (PoE or PoE+) via Ethernet port. If your local network doesn't support PoE/PoE+ or in case you want to connect the reader to your local PC, you can power it simply adding a PoE/PoE+ power injector (sold separately) to add inline power to a standard network connection.

C. Connect the reader through Ethernet interface

The RFID reader has DHCP client enabled by default. It can be connected to the laundry network or directly to your PC for first setup. Follow the next steps if you want to connect it to your PC directly.

1. Make sure your Local Area Connection adapter is set to obtain an IP address automatically.



2. Connect the output port of the PoE/PoE+ power injector to the RFID reader and the input port to your local PC.
3. Plug in the power cord of the power injector and wait until System LED is solid blue

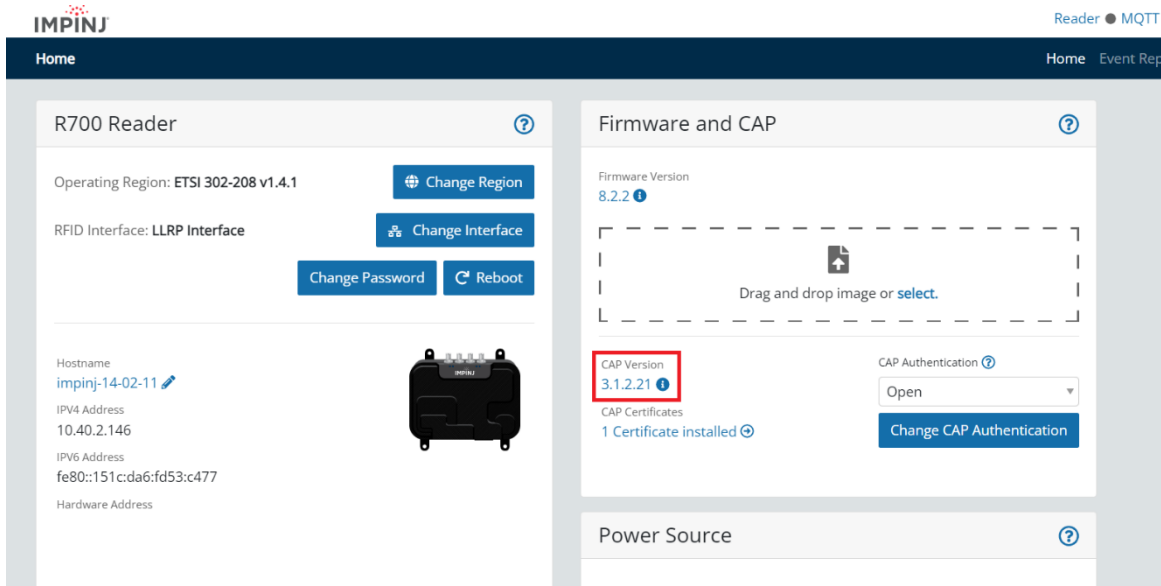
D. Check if Cloudburst SW is already installed

Before proceeding to the next chapters, it is important to check if Cloudburst SW is already installed, therefore please proceed as described in the following steps.

1. Connect to the reader management interface using a Web browser (e.g. Google Chrome), type <http://169.254.1.1> address in the address bar or use url like <http://impinj-XX-XX-XX.local/> for the R700 reader where last 6 digit of the MAC address replaces XX in the url. After that press enter to login with the default credentials. User name: root & Password: impinj
 - a. **Note:** For R700 readers provided by Datamars with firmware versions greater than 9.X.X, the default password is: **password** unless otherwise changed by customer
2. In the reader’s details, check if an application SW is installed.

DETAILS		ANTENNA	
Model Name	Speedway R120	Feature Set	
Regulatory Region	ETSI 302-208 v1.4.1	Press to E	
MAC Address	00:16:25:13:E3:7E		
Software Version	7.6.1.240 (Build 9b2266927f9)	READER R	
Hardware Version	260.006.008	Reboot St	
Application SW Version	2.4.0.42	Press to F	
Serial Number	019 25 21 0116		
NETWORK		QUICK LIN	

Note: In readers with newer firmware version (Octane firmware), the UI is different and you would be able to find the installed Cloudburst version under the “CAP version”, as shown below:



3. If the “Application SW Version” or “CAP Version” is shown it means that Cloudburst SW is already installed, so please proceed directly to chapter F.

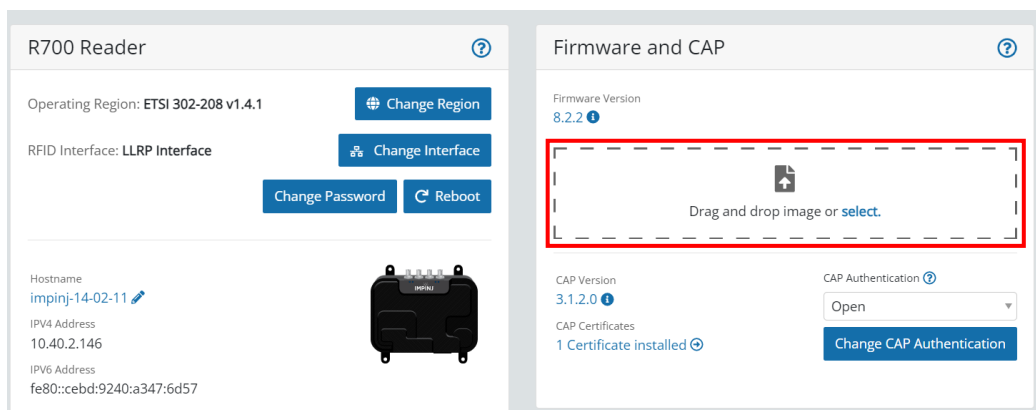
E. Install Cloudburst software to start operating the reader

Cloudburst is a Datamars software that allows to manage the RFID reader and it allows to quickly deploy the RFID system with no need for software development and deep RFID knowledge.

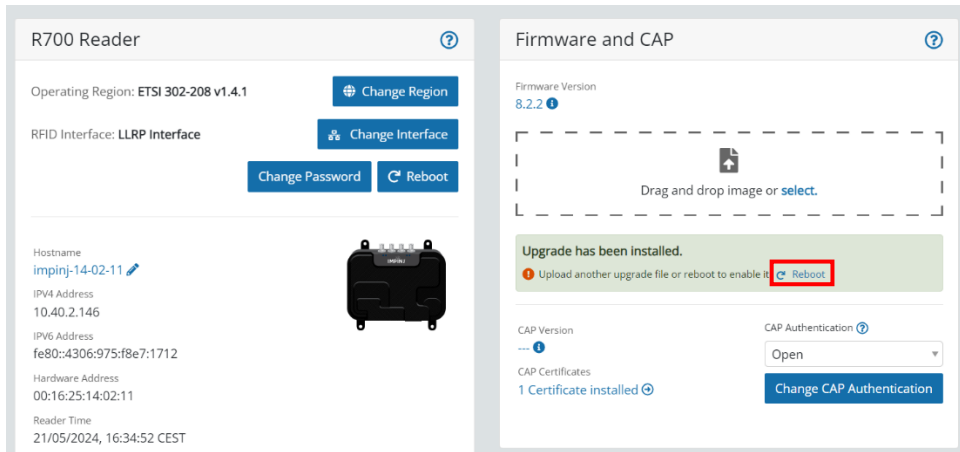
1. Download Cloudburst clicking the Download button at the following address <https://www.textile-id.com/cloudburst> and unzip the downloaded file.
2. Connect to the reader management interface using a Web browser (e.g. Google Chrome), type <http://169.254.1.1> address in the address bar or use url like <http://impinj-XX-XX-XX.local/> for the R700 reader where last 6 digit of the MAC address replaces XX in the url. After that press enter to login with the default credentials. User name: root & Password: impinj
 - a. **Note:** For **R700** readers provided by **Datamars with firmware versions greater than 9.X.X**, the default password is: **password** unless otherwise changed by customer
3. Click the Browse... button in the Reader upgrade section. Select the .upgx file (e.g., Cloudburst_1_0_0.upgx) in the unzipped folder of the previously downloaded file and click Open.

READER UPGRADE	
Upgrade Status	Ready
Last Operation Status	N/A
Select Upgrade File	<input type="button" value="Browse..."/> Cloudburst_1_0_0.upgx
Upgrade Now	<input type="button" value="Upgrade [↑]"/>

- a. Note: In readers with newer firmware version (Octane firmware), the UI is different and you would have to upload the .upgx file where it says “Drag and drop image or select”. After uploading the file, it will automatically be processed and the reader UI would ask to reboot or show error messages in case file is not correct:



4. Click on the Upgrade [↑] button. The reader uploads Cloudburst and then commits the SW image, the process lasts about 30 seconds. When the Last Operation Status turns to Waiting for manual reboot click on the Reboot ↻ button in the Reader Reboot section. The installation and reboot process take about 60 seconds. If the software is successfully installed the System LED is solid blue and the Inventory LED blinks blue.
 - a. Note for newer reader management versions the interface would be shown like below and would notify & ask user to reboot reader. When you click on the reboot, the interface would again show a pop up, you would need to click on the “Reboot” button again and the reader would proceed with restarting.



F. Start operating the reader with Cloudburst

1. Connect an antenna to the ANT1 connector on the RFID reader and put an RFID tag on the antenna.
2. Connect to the Cloudburst Web GUI using a Web browser (e.g. Google Chrome), type <https://169.254.1.1:8443/> address in the address bar or use url like <https://impinj-XX-XX-XX.local:8443> for the R700 reader where last 6 digit of the MAC address replaces XX in the url. After that press enter to login with the default credentials. Type the default password: password and click the Login button.



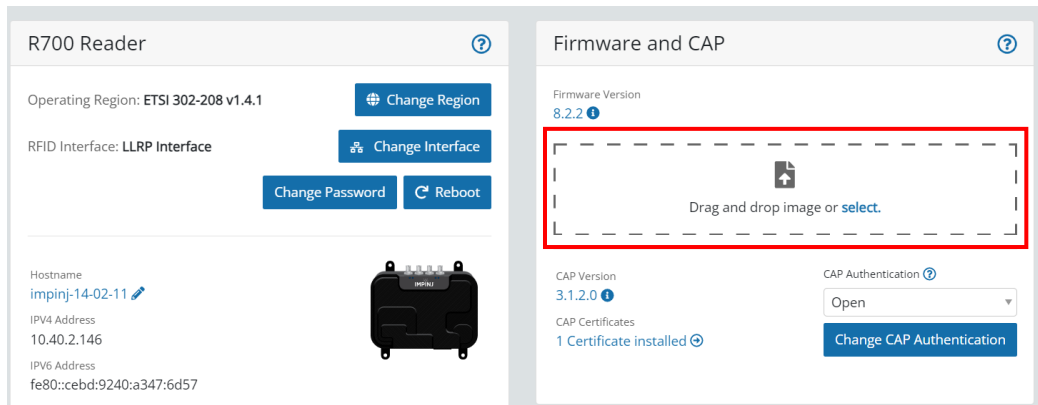
3. Click on the LiveRead button on the right side of the page and then click on the Start button. The EPC (Electronic Product Code) of the RFID tag on the antenna is shown on the LiveRead window. You successfully read the tag!
4. Cloudburst allows to set-up all the parameters included the network interface of the reader to connect it to the laundry network and start getting EPCs in the laundry management software.

G. Updating the R700 firmware version via Reader management interface

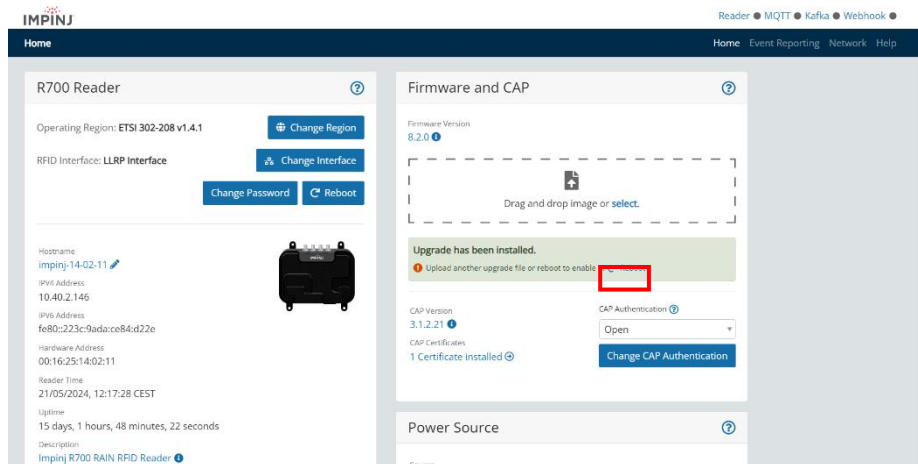
1. Download the latest .upgx file sent by the support team on the PC
2. Unzip into a folder and remember the location for the .upgx file
3. Connect to the reader management interface using a Web browser (e.g. Google Chrome), type <http://169.254.1.1> address in the address bar or use url like <http://impinj-XX-XX-XX.local/> for the R700 reader where last 6 digit of the MAC address replaces XX in the url. After that press enter to login with the default credentials. User name: root & Password: impinj
Note: For **R700** readers provided by **Datamars** with **firmware versions greater than 9.X.X**, the default password is: **password** unless otherwise changed by customer.
4. Click the “Browse...” button in the “Reader Upgrade” section. Make sure to select the .upgx file (e.g., Impinj_R700_Firmware_v8.2.2.upgx) in the unzipped folder of the previously downloaded file and click “Open”.

READER UPGRADE	
Upgrade Status	Ready
Last Operation Status	N/A
Select Upgrade File	<input type="button" value="Browse..."/> Cloudburst_1_0_0_0.upgx
Upgrade Now	<input type="button" value="Upgrade [↑]"/>

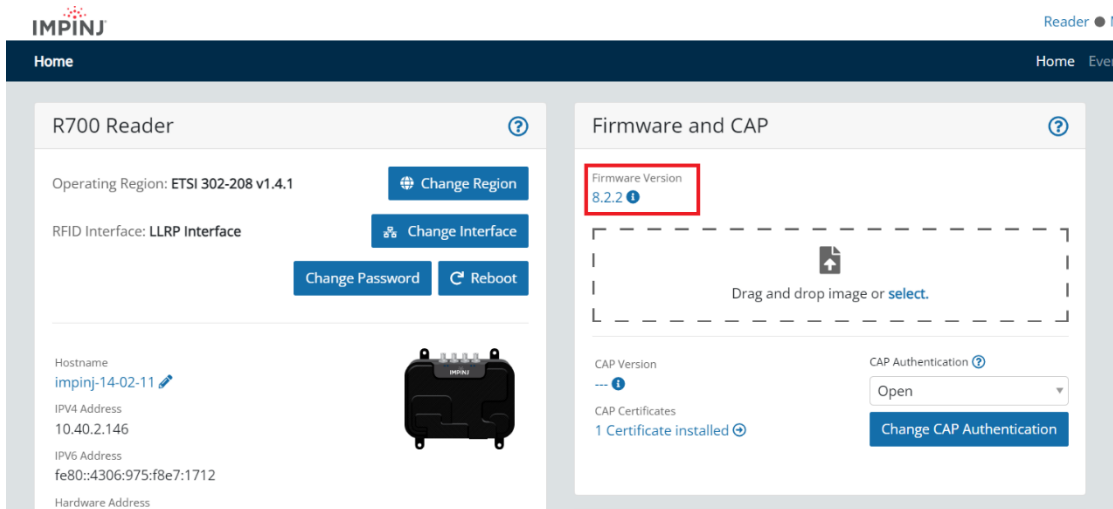
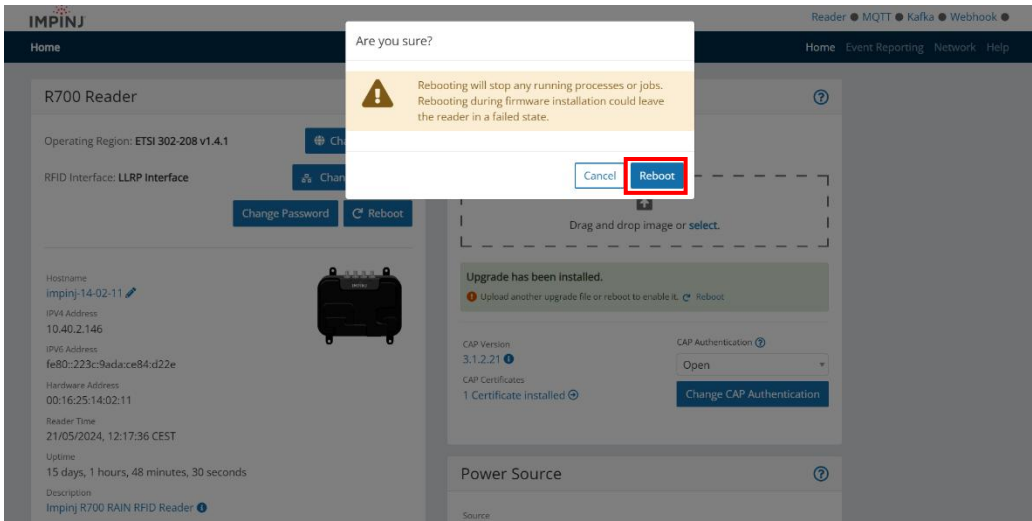
Note: In readers with newer firmware version (Octane firmware), the UI is different and you would have to upload the .upgx file where it says “Drag and drop image or select”. After uploading the file, it will be automatically processed and the reader UI would ask to reboot or show error messages in case file is not correct:



5. When successfully processed and uploaded, the interface would show the message accordingly to restart the reader. Click on the Reboot button and then confirm the pop up by clicking on the Reboot button again.



- 6. In about 30-60 seconds, the page should refresh, and you should be able to see the new firmware version being displayed in the interface under the Firmware Version:

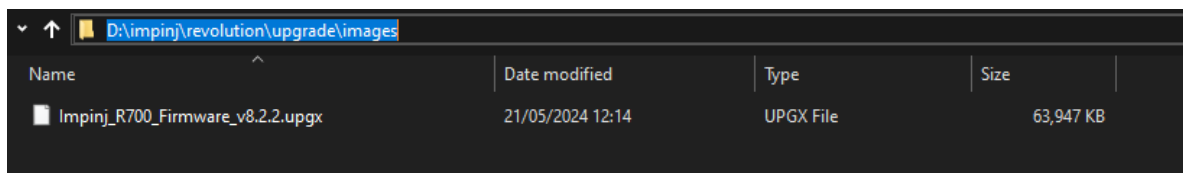


H. Updating the R700 firmware version via USB drive

The Impinj R700 firmware can be updated via USB drive. To do so, first obtain the firmware upgrade file sent by the support team. The upgrade file extension is **.upgx**. (Example: *Impinj_R700_Firmware_v8.2.0.upgx*).

To prepare the USB drive for the upgrade:

1. Insert a USB drive into your computer.
2. Format the USB drive as FAT32.
3. Create a directory named `impinj` in the root of the USB drive, and create the subdirectories `revolution`, `upgrade`, and `images`. The names of these directories are case sensitive and must all be lower case. It is important to create the path correctly for the reader to correctly pick it up for updating. The path should look like:



4. Copy the desired firmware upgrade **.upgx** file into the directory: `impinj\revolution\upgrade\images`.

Note: If multiple **.upgx** files exist in the `images` directory, the reader will use the most recently modified file.

5. Remove the USB drive from your computer.

To use the USB drive to update the reader:

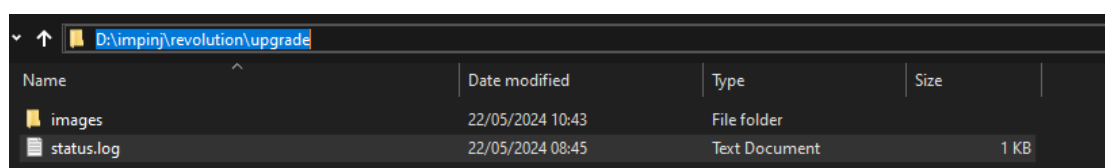
1. Confirm that the reader is ready for upgrade, and that the System LED is solid blue and the Upgrade LED is off.

2. Insert the USB drive into the "USB Host" port on the reader. Within 5-10 seconds, the reader will begin upgrading the reader and the Upgrade LED will blink blue. If the Upgrade LED remains off, the reader likely cannot locate the `images` directory and **.upgx** file on the USB drive.

3. The upgrade process completes in 20-60 seconds and then the Upgrade LED changes to solid blue.

4. Remove the USB drive from the "USB Host" port and reboot the reader.

During the upgrade process, the reader will attempt to append information to a `status.log` file in the `impinj/revolution/upgrade` directory. The `status.log` file is intended to provide an audit trail for the upgrade of one or more readers.



If the firmware upgrade process fails, the System LED will blink red. Remove the USB drive, reboot the reader, and check the status.log file for the reason of the failure.

For additional information see the Cloudburst online help or the user manual at the following link:
<https://www.textile-id.com/cloudburst>.

Support

Contact Datamars Textile ID support team at support-tid@datamars.com or call the landline support at +41 91 935 73 80.