

# Product Document



## User Guide

UG001045

# TMF8X0X

## EVM GUI Logfile Format Description

v1-00 • 2022-Oct-11

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# Content Guide

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# 1 Log File Format

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This document describes the log file format of the TMF8X0X EVM GUI. The user shall be able to log all data, which the TMF8X0X EVM GUI displays, into a single log file.

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## 1.1 Overview

The TMF8X0X EVM GUI uses CSV as output format for the log file.

The first two lines are always (to allow usage independent of the Excel regional settings):

```
sep=;  
VersionGUI "<version of the used GUI>"
```

After that, the TMF8X0X EVM GUI adds a header line for each tag with the description of fields. This is the same format as in the data lines but instead of actual data there is a field description.

All but the very first two lines always start with a hash mark "#" and the content as described in the next sections.

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## 2 Tags

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### 2.1 #OBJ Object Detection Result

Figure 1:  
#OBJ Field Numbers and Description

Field #	Description
1	#OBJ – line tag
2	Timestamp in milliseconds since 1 <sup>st</sup> January 1970.
3	Number of detected objects – for TMF8701 always '1', for TMF880x see datasheet. The following fields are only filled if the number of detected objects is > 0.
4	Confidence level of object: (0-63, 63 best, 0-no object detected), where 10 and 20 is used also by the proximity algorithm.
5	Distance of detected object (center) in [mm].
6	Reference photon count.
7	Object photon count.

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### 2.2 #PT0 ... #PT4 Short Distance Histogram Data

Figure 2:  
#PTX Field Numbers and Description

Field #	Description
1	#PT0 ... #PT4 – line tag
2 - 257	Target data histogram with 256 entries, each entry 5 characters wide with decimal encoding, valid values are 00000 to 65535.

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### 2.3 #TG0 ... #TG4 Distance Measurement Histogram Data

Figure 3:  
#TGX Field Numbers and Description

Field #	Description
1	#TG0 ... #TG4 – line tag

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Field #	Description
2 - 257	Target data histogram with 256 entries, each entry 5 characters wide with decimal encoding, valid values are 00000 to 65535.

## 2.4 #SUM Target Measurement Histogram Data Sum

Figure 4:  
#SUM Field Numbers and Description

Field #	Description
1	#SUM – line tag
2 - 257	Sum of selected channels from TG1 ... TG4 data histogram with 256 entries, each entry 5 characters wide with decimal encoding, valid values are 00000 to 65535.

## 2.5 #CI0 ... #CI4 Internal Electrical Calibration Histogram Data

Figure 5:  
#CIX Field Numbers and Description

Field #	Description
1	#CI0 ... #CI4 – line tag
2 - 257	Calibration histogram data with 256 entries, each entry 5 characters wide with decimal encoding, valid values are 00000 to 65535.

## 2.6 #CO0 Optical Calibration Histogram Data

Figure 6:  
#CO0 Field Numbers and Description

Field #	Description
1	#CO0 – line tag
2 - 257	Calibration histogram data with 256 entries, each entry 5 characters wide with decimal encoding, valid values are 00000 to 65535.

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## 2.7 #CAL Calibration Data

The result of a calibration operation. Basically an unstructured blob of data.

**Figure 7:**  
**#CAL Field Numbers and Description**

Field #	Description
1	#CAL – line tag
2	Calibration operation: 00 ... new calibration, 01 ... clear calibration, 02 ... get current calibration.
3 ...	Calibration data blob, 2 character hex values.

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## 2.8 #VER Version

**Figure 8:**  
**#VER Field Numbers and Description**

Field #	Description
1	#VER – line tag
2	Serial number of the ToF sensor.
3	Version of the application firmware running on the ToF sensor.
4	GUI version.
5	Host driver version.

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## 2.9 #TMP ToF Sensor Temperature

**Figure 9:**  
**#TMP Field Numbers and Description**

Field #	Description
1	#TMP – line tag
2	Temperature of the ToF sensor in degrees Celsius

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## 2.10 #ITT Iterations and Object Detection Threshold

**Figure 10:**  
#ITT Field Numbers and Description

Field #	Description
1	#ITT – line tag
2	Iterations
3	Object detection threshold



### 3 Revision Information

Changes from previous version to current revision v1-00	Page
Initial version	

- Page and figure numbers for the previous version may differ from page and figure numbers in the current revision.
- Correction of typographical errors is not explicitly mentioned.

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