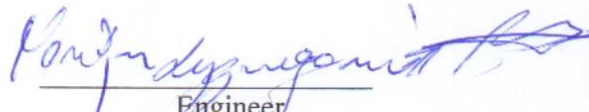


## RELIABILITY PREDICTION REPORT

Equipment under Test: GNSS&GSM TERMINAL, FMB920  
Product: FMB920  
Manufacturer: Teltonika  
Report No.: TLTK-20171013FMFT-14  
Report Date: 13 October,2017

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## Table of Contents

1. PURPOSE .....	3
2. RELIABILITY PREDICTION .....	3
2.1. Analysis Database .....	3
2.2. Analysis Method .....	3
2.3. Calculation Parameters .....	3
3. RESULTS .....	4
4. REVISION HISTORY .....	4

## 1. PURPOSE

Reliability prediction methodology provides the basis for reliability evaluation and analysis. The purpose of the prediction is to predict the life time of the product in units of failure rate and MTBF.

## 2. RELIABILITY PREDICTION

### 2.1. Analysis Database

Polimore MTBF Calculator

### 2.2. Analysis Method

The prediction method used: Telcordia SR-332, Issue 2, Parts Count  
Failure rate ( $\lambda$ ) =  $10^6$  hours(FITs)  
MTBF =  $1/\lambda$

$$\lambda_{ssi} = \lambda_{Gi} \pi_{Qi} \pi_{Si} \pi_{Ti}$$

Where

$\lambda_{Gi}$  = Generic steady – state failure rate for device  $i$

$\pi_{Qi}$  = Quality factor for device  $i$

$\pi_{Si}$  = Stress factor for device  $i$

$\pi_{Ti}$  = Temperature factor for device  $i$

### 2.3. Calculation Parameters

Environment: Ground Mobile, Uncontrolled

Operation Stress: 50%(Voltage, Current, Power)

Method: Method I, Case 3

### 3. RESULTS

ITEM	Failure Rate (FIT)	Predicted MTBF (Hours)
Teltonika FMB920	37.654146542	26557.500085272

**Note:** library components of a near equivalent or similar technology and function were substituted when the parts could not be exactly found in the library.

### 4. REVISION HISTORY

Rev#	Date	Description
1.0	2017-10-13	First release