JSC Teltonika

Address: Saltoniškių st. 10c, Vilnius, Lithuania

Tel: +370 5 212 7472

Fax: +370 5 276 1380

RELIABILITY PREDICTION REPORT

Equipment under test:	LTE router RUT950
Product:	RUT950
Manufacturer:	Teltonika
Report No.:	TLTK-20160107RT95-50
Report Date:	6 January, 2016

Documented by: _____

Engineer

Approved by: _____

Manager

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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

MTBF Calculator by ALD

2.2 Analysis method

The prediction method used was Telcordia SR-332, Issue 2, Parts Count

Failure rate $(\lambda) = 10^9$ 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 parameter

Operation temperature - 25°C

Environment - Ground Mobile, Uncontrolled

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

Method - Method I, Case 3

Note:

Telcordia:

The Telcordia model is based on the Telcordia document, *Reliability Prediction Procedure for Electronic Equipment,* Technical Reference SR-232. This standard, originally developed by AT&T Bell Lab as the Bellcore model, basically modified the component models in ML-HDBK-217 to better reflect the failure rates that AT&T Bell Lab equipment was experiencing in the field. To support talking into account stress, burn-in laboratory, or field data, this model supports different failure rate calculation methods. Telcordia includes the ability to perform a Parts Count or Parts Stress analysis. Relex supports Telcordia Issues 1 and 2 as well as Bellcore Issues 4, 5 and 6. Telcordia Issue 2, released in September 2006, replaces Telcordia Issue 1, released in May 2001. For more information about the fields in Relex Reliability Studio specific to Telcordia Issue 2, refer to Telcordia Issue 2 Fields.

3. PREDICTION RESULT

Item	Failure Rate (FITs)	Predicted MTBF (Hours)
LTE Router RUT950	3662,85	273011,44

Note:

1. The result represent the failure rate and MTBF of the product according to Telcordia SR-332, Issue 2, Method I, Case 3 under Ground Mobile, Uncontrolled environment, 50% operation stress.

2. Library components of near equivalent or similar technology and function were substituted when the parts could not be exactly found in the library.

4. REVISION HISTORY

Rev. No.	Date	Description
1.0	2016-01-07	First release