

# MTBF Report

## Identification Data

|                         |  |
|-------------------------|--|
| <b>Name of device</b>   | SmartMotion WIFI PD                          |
| <b>Order codes</b>      | ST3521902x                                   |
| <b>Sort</b>             | Router with two independent cellular modules |
| <b>Created, date</b>    | Petr Hanuš, VPTO, April 21, 2016             |
| <b>Authorized, date</b> | Pavel Kopecký, VTO, April 21, 2016           |

## Prediction Method

MIL-HDBK-217F-2, parts count

## Prediction Data

|             |                          |
|-------------|--------------------------|
| <b>Temp</b> | 25 °C                    |
| <b>FR</b>   | 9766.8 FITS              |
| <b>MTBF</b> | 102387 hours, 11.7 years |

|                   |                          |
|-------------------|--------------------------|
| <b>SF</b>         | 33 %                     |
| <b>MTBF final</b> | 307470 hours, 35.1 years |

|                         |         |
|-------------------------|---------|
| <b>Op. Time T</b>       | 5 years |
| <b>Probability R(T)</b> | 87 %    |
| <b>R(T) in -25/+55C</b> | 65 %    |

## Explanatory Notes

**Temp** – Temperature at reference conditions.

**FR** – Failure rate: It's the rate of product failures expressed as a function of time.

**MTBF** – Mean Time Between Failures is a prediction of a power supply's reliability.

**SF** – Severity factor: Degree of severity in the event of failure.

**MTBF final** – MTBF including Severity factor.

**Op. time T** – Operating time of interest.

**Probability R(T)** – Probability that the product will operate for the Op. time T without a failure.

**R(T) in -25/+55C** – Probability in specified interval.

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