



## EFFECTIVENESS DETERMINATION OF ELECTRONIC DEVICES PREVENTIVE MAINTENANCE

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**Abstract:** *Proper form of maintenance systems allow as to make optimization in choice of the most suitable maintenance system. Such problem may be solved if it is possible precise determination of all important requirements and constrains. The base of presented methodology make reliability parameters of analyzed technical system, obtained by monitoring of its behavior, considering real exploitation conditions, and cost of maintenance.*

**Key words:** *electronic devices, maintenance, optimization, availability, reliability, costs.*

### 1. INTRODUCTION

Preventive maintenance represents set of arrangements aimed to prevent failure of devices and to extend their life cycle. Set up of preventive operations requires contradict requirements: On the one hand one should increase reliability of equipments by employing preventive arrangements, which require significant time consumption, and to another hand prolonged delays of expensive devices caused with preventive maintenance are not desired from economical point of view. That is the reason that we consider here optimal conditions to manage preventive maintenance with minimal production delays.

Research in the field of preventive maintenance enable not only maintain of reliability level of radio electronic devices, provided in design and production phases, but make possible increase of that level with increasing number of prevented defects by timely detection of reasons for defects and its removal. In scientific approach to preventive maintenance is very important study of development and multiplication of defects.

### 2. CHARACTERISTICS OF DEFECTS OF PREVENTIVE MAINTAINED ELECTRONIC DEVICES

Analyzing reasons for which delays arise shows that before failure there are changes in physical chemical structure of elements, but device continue to operate in spite of some their parameters do not fulfill proposed technical conditions. Such

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