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 (**λ**) = 10^6 hours(FITs)
MTBF = 1/λ

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

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