

### ● MTBF (Mean Time Between Failure)

MTBF is the average frequency with which a product fails, the average time between failure or the length of time a product is expected to work without failure. For example: Notebook

### ● MTTF (Mean Time To Failure)

MTTF is a basic measure of reliability for non-repairable systems. It is the mean time expected until the first failure of a piece of equipment. For example: Fans' characteristics

### ● CL (Confidence Level)

For example: MTBF is 3000 hours, 90% confidence Level. Each time of test observation value is  $MTBF_i$ , which means 90% of  $MTBF_i$  value will be 30000 hours above.

### ● L10 (Life 10)

It is to sample one lot of fans for life test and when the failure accumulates to 10% of time, the L10 temperature's value is equal to MTTF temperature  $1/9.5$  time. MTBF (mean time between failures) is the expected time between two successive failures of a system. Therefore, MTBF is a key reliability metric for systems that can be repaired or restored such as airplanes and cars. MTTF (mean time to failure) is the expected time to failure of a system. Non-repairable systems can fail only once such as fans and tubes. Therefore, for a non-repairable system, MTTF is equivalent to the mean of its failure time distribution.

When a life accelerated test is done within 70 degrees, 30000hours (CL 90%), MTTF/MTBF value is a product' life expectancy, not guarantee all products' life 100% to be achieved.