



# DHS100A Reliability Test results

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OS Design DEPT.

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| No. | Test Item                                       | Testing conditions   | Conditions of acceptability   | Number of samples | Number of failures |
|-----|---|--|---|-------------------|--------------------|
| 1   | Heat cycle test                                 | (1) -40°C ~ 125°C 30minutes each<br>(2) 600cycles  | (1)No degradation of electric characteristics after test.   | 6                 | 0                  |
| 2   | High temperature/<br>High humidity<br>bias test | (1) Ta=85°C,RH=85%<br>(2) At rated input<br>(3) Load 0%<br>(4) 1000hours                               | (1)No degradation of electric characteristics after test.   | 3                 | 0                  |
| 3   | Vibration test                                  | (1) f=10~55Hz,49.0m/s <sup>2</sup> (5G)<br>(2) 3minutes period<br>(3) 1hour each X,Y and Z axis        | (1)No degradation of electric characteristics after test.<br>(2)No crack at solder joint.<br>(3)No marked damage of appearance. | 3                 | 0                  |
| 4   | Impact test                                     | (1) 196.1m/s <sup>2</sup> (20G),11ms<br>(2) Once each X,Y and Z axis                                   | (1)No degradation of electric characteristics after test.<br>(2)No crack at solder joint.<br>(3)No marked damage of appearance. | 3                 | 0                  |
| 5   | Soldering heat test                             | (1) 260°C,15seconds<br>(2) Mounting board : t=1.6mm / FR-4   | (1)No crack at solder joint.<br>(2)No marked damage of appearance.  | 1                 | 0                  |
| 6   | Soldering test                                  | (1) Pre-process<br>Vapor agein(100°C/100%),1H<br>Flux treatment<br>(2) Soldering<br>235°C±5°C,2seconds | (1)Over 95% of dipped part is covered with solder.  | 1                 | 0                  |
| 7   | Pin strength test<br>immunity test              | (1) Weight φ1 pin : 2kg<br>φ2 pin : 4kg<br>(2) Bending angle:90 deg.,<br>total 180 deg.<br>(3) 1 cycle | (1)No degradation of electric characteristics after test.<br>(2)No broken or bent pin.  | 5                 | 0                  |
| 8   | Static electricity<br>immunity test             | (1) Applied voltage ±8kV<br>(2) At rated input and load  | (1)No protection circuit fail.<br>(2)No output voltage drop with control circuit fail.<br>(3)No any other function fail.        | 1                 | 0                  |