

**UMA30F series Reliability test results**

Approved : Takashi Kajii

Prepared : Akihisa Mukai

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 (2) 800cycles	(1)No degradation of electric characteristics after test. (2)No crack at solder joint.	4	0
2	High temperature/ High humidity bias test	(1) Ta=85°C, RH=85% (2) At rated input (3) Load 0% (4) 1000hours	(1)No degradation of electric characteristics after test.	1	0
3	Vibration test	(1) f=10~55Hz, 19.6m/s <sup>2</sup> (2G) (2) 3 minutes period (3) 60 minutes along X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No mechanical damage of appearance.	3	0
4	Impact test	(1) 196.1m/s <sup>2</sup> (20G), 11ms (2) Once each X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No thermal damage of appearance.	3	0
5	Electrostatic discharge immunity test	(1) Rated load (2) Ambient temp. 25±10°C (3) Contact Discharge : Level 4 (8kV) (4) Air Discharge : Level 4 (15kV) (5) Applied to Chassis, Input, Output and FG terminal	(1)No protection circuit fail. (2)No output voltage drop with control circuit fail. (3)No any other function fail.	1	0