

WHISKER REPORT

Accelerated environmental test have been performed according to JESD201A and internal TSC quality and reliability requirements. Package details and whisker test results are summarized as follows.

Product Details:

Supplier:	Taiwan Semiconductor Co., Ltd.
Package Type:	PDFN56U Dual
Assembly Site:	Yilan, Taiwan
General Specification:	JESD201A

Whisker Test Results Summary:

Stress Test	Abbrev	Test Methods	Test Conditions	Final Readpoint	Requirements		Criteria	Results	
					SS	# Lots		Rej/SS	Remarks
Environmental and Lifetime Stress Tests									
Temperature Cycle	TC	JESD22-A121 JESD201	-55 (+0/-10)°C to +85 (+10/-0)°C air to air; 10minutes soak; ~3cycles/hour	500 cys	3	3	< 45.0 um	0/9	Passed
				1000 cys	3	3		0/9	Passed
				1000 cys	3	3		0/9	Passed
				1500 cys	3	3		0/9	Passed
Temperature/ Humidity Storage	TH	JESD22-A121 JESD201	30°C±2°C , 60%±3% RH	1000 hrs	3	3	< 40.0 um	0/9	Passed
				2000 hrs	3	3		0/9	Passed
				3000 hrs	3	3		0/9	Passed
				4000 hrs	3	3		0/9	Passed
High Temperature High Humidity Storage	HTHH	JESD22-A121 JESD201	Temperature =55°C±3°C, Humidity=85%±3%	1000 hrs	3	3	< 40.0 um	0/9	Passed
				2000 hrs	3	3		0/9	Passed
				3000 hrs	3	3		0/9	Passed
				4000 hrs	3	3		0/9	Passed

Note: Acceptance by Similarity according to JESD201. Qualification test vehicle is SMPC4.6U with same technology (base metal), surface finish process (in-line plating) and plating equipment/vendor.

Conclusion:

Successfully passed Tin Whisker test per JESD201A.