

## Power Module Board Level Reliability Report(as of 11/17/15)

### Summary

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Test Name	Conditions	Duration	# of Lots	Sample Size	Rejects
TEMP CYCLE	-20C TO 100C	920	1	10 (note 1)	0
TEMP CYCLE	-40C TO 125C	5000	1	9 (note 2)	0 (note 3)
TEMP CYCLE	-40C TO 125C	2000	1	45 (note 4)	0
TEMP CYCLE	-40C TO 125C	2000	1	44 (note 5)	0
TEMP CYCLE	-40C TO 125C	2000	1	16 (note 6)	0
TEMP CYCLE	-40C to 125C	2000	1	16(note 7)	0
TEMP CYCLE	-40C to 125C	1000	1	57(note 8)	0

#### Notes:

- 1) 15x15x2.2 QFN body size. 2 functional modules per board. Assembled using 63/37 Sn/Pb solder paste
- 2) 15x15x3.5 QFN body size. 1 functional modules per board. Assembled using 63/37 Sn/Pb solder paste
- 3) 1 reject detected at 2000 cycles – not due to board level solder joint failure.
- 4) 11.45x17.2x2.5 HDA body size. 1 daisy chain modules per board. Assembled using SAC 305 Pb free solder paste.
- 5) 11.45x17.2x2.5 HDA body size. 1 daisy chain modules per board. Assembled using 63/37 Sn/Pb solder paste.
- 6) 15x15x2.2 QFN body size. 2 functional modules per 12 layer board. Assembled using 63/37 Sn/Pb solder paste
- 7) 15x15x3.5 QFN body size. 2 functional modules per 12 layer board. Assembled using 63/37 Sn/Pb solder paste
- 8) 18x23x7.5 HDA body size. 3 functional modules per 6 layer board. Assembled using SAC305 Pb free solder paste.

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For additional information, please contact

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