



**Reliability Report
(Q2018-002)**

**CPC1984Y Product Qualification
600V, 1A AC/DC Form-A SSR**

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Summary

The CPC1984Y product has successfully passed IXYS ICD’s requirements for product qualification.

Table 1: Device Information

| | |
|----------------|--------------------------------|
| Product Number | CPC1984Y |
| Package Type | 4 Pin Power SIP |
| Assembly Site | Atec, Laguna, Philippines |
| Test Site | IXYS ICD BEV, Beverly, MA, USA |

Table 2: Reliability Test Result

| Stress Test | Stress Conditions | Applicable Specs | Product/Package | Sample Size (SS) | # of Failures |
|-------------|---------------------------------|--------------------------------------|--------------------|------------------|---------------|
| HTRB | 125°C, 80% WVDC, 1000 hrs | Mil-Std-883 M1005 JESD22-A-108 | CPC1984Y TE3699 | 105 | 0 |
| Hot Storage | 125C, 1000 hrs | JESD22-A103-C | CPC1984Y TE3699 | 50 | 0 |
| MSL | IR Reflow, Level 1 | J-STD-020D.1 | CPC1984Y TE3699 | 25 | 0 |

Table 3: ESD Results

| Stress Test | Stress Conditions | Applicable Specs | Product/Package | Highest Passed | Class |
|-------------|------------------------------|------------------|--------------------|----------------|-------|
| HBM | All Pins, 1.5kΩ, 100pF | JS-001-2017 | CPC1984Y TE3699 | +/-4000V | 3A |

Table 4: FIT Rate Summary

| Qual Lot # | Stress Test | # of Devices | # of Fail | Hours Tested | Equivalent Dev. Hours | FIT Rate @ 60% CL |
|------------|-------------|--------------|-----------|--------------|-----------------------|-------------------|
| 1 | HTRB | 105 | 0 | 1000 | 26,817,626 | 34.31* |

* HTRB FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 125°C test temperature and 40°C use temperature.

Approvals

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