



**Reliability Report  
(Q2016-008)**

**CPC1966BX8 Product Qualification  
Rapid Turn-On AC Power Switch**

**June 10, 2016**

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**Summary**

The CPC1966BX8 product has successfully passed IXYS ICD’s requirements for product qualification.

**Table 1: Device Information**

Product Number	CPC1966BX8
Package Type	8 Pin Power SOIC
Assembly Site	ATEC 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	115°C, 80% WVDC, 1000 hrs	Mil-Std-883 M1005 JESD22-A-108	CPC1966YX8 TE3543	105	0
Thermal Shock	0 to 100°C, 10/10 dwells, 15 cycles	Mil-Std-883, M1011	CPC1966BX8 TE3542	55	0
			TE3576	55	0
Temperature Cycle	-55 to 125°C, 10/10 dwells, 300 cycles	Mil-Std-883, M1010, “B”	CPC1966BX8 TE3542	55	0
			TE3576	55	0
Hot Storage	125C, 1000 hrs	JESD22-A103-C	CPC1966BX8 TE3542	50	1
			TE3576	50	0
MSL	IR Reflow, Level 1	J-STD-020D.1	CPC1966BX8 TE3542	25	0
			TE3576	25	0

**Reference products/quals: CPC1966YX6, CPC1966YX8, CPC1966B**

**Table 3: ESD Results – 8L Power SOIC**

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	CPC1966BX8 TE3542	+/-8000V	3B

**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	15,847,460	58.05

\* HTRB FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 115°C test temperature and 40°C use temperature.

## Approvals

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