

Reliability, Safety and EMC

Reliability Verification

In order to guarantee the high reliability of power supply products in the whole life cycle, Huawei have carried out strict reliability verification and screening activities from materials, design to production.

Item	Standard	Conditions	Time	Quantity
HALT	IPC9592	Lower operating Limit: -60°C(-76°F); Upper operating Limit: 110°C(248°F); Destruct Limit: 40G	48 H	4 PCS
Power and Temperature Cycling Test	IPC9592	-40 - 85°C; 50% - 80% load, Air Flow: 1 - 2m/s; Temperature Slope: 10 - 15°C/min	1000 H	8 - 16 PCS
High Temperature Operation Life	IPC9592	50 ±5°C; 50% - 80% load; air flow: 0.5 - 5m/s	1000 H	16 PCS
Temperature Humidity Bias	IPC9592	85°C; 85%RH	1000 H	16 PCS
Dust Test*	GB/T 2423.4	24H Hygroscopic Dust; 48H Humidity and Thermal	72 H	3 PCS
Exposure Test*	GBT14165-2008	Field Testing in HaiNan and ChongQing	1 Year	24 PCS
Airborne Contaminants Test*	GR-63 (Extension test time)	Outdoor 30°C; 70%RH; 20ppb Cl ₂ , 100ppb H ₂ S 200ppb NO ₂ , 200ppb SO ₂	1000 H	110 PCS
Sulfuration Corrosion Test*	GB/T 2423.20	60°C; 70%RH; 100PPM H ₂ S	200 H	3200 PCS
High Temperature Operating Life Screening Test	IPC9592	Thermal Spot Temperature: 90 - 100°C; Rating Input Voltage; 50% - 80% Load; Ambient Temperature: 40 - 60°C, Air Flow: 0.5 - 5m/s	24H - 12H - 8H - 4H	All Power Model Products
Ongoing Reliability Auditing Test	IPC9592	Thermal Spot 90 - 100°C; Rating Input Voltage; 50% - 80% Load; Ambient Temperature 40 - 60°C; Air Flow: 0.5 - 5m/s	336 H	≥48PCS in the life cycle
Temperature Cycling Auditing Test*	IPC9592	Ambient Temperature: -40 - 55°C; Rating Input Voltage, 50% Load; Air Flow: 1.0-2.0m/s; 5 cycles; Temperature Slope: 15°C/min	10 H	8 - 16PCS/per task

* The test items with asterisk are optional in the design and production process according to product applications and customers' requirements.

Safety and EMC

IEC/EN/UL60950-1 second edition

UL and TUV/CE certification

EN55022, EN55024, EN300386, GB9254, GB17626 (an external filtering circuit required)

All non metal material to meet the corresponding flame retardant grade