



陕西亚成微电子有限责任公司

方案调试与验证报告

AE&FAE Department

Version:1.0

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Test Item:

1:Load Regulation;

2:Line Regulation;

3:Output Ripple Voltage;

4:Efficiency;

5: OCP;

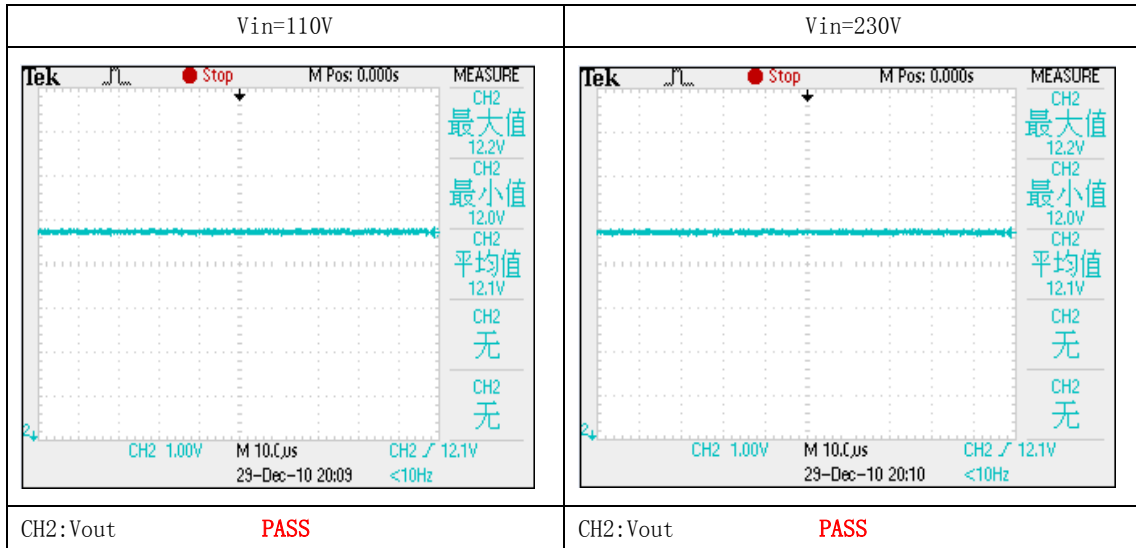
6: OSP;

7:Diode Drop Voltage;

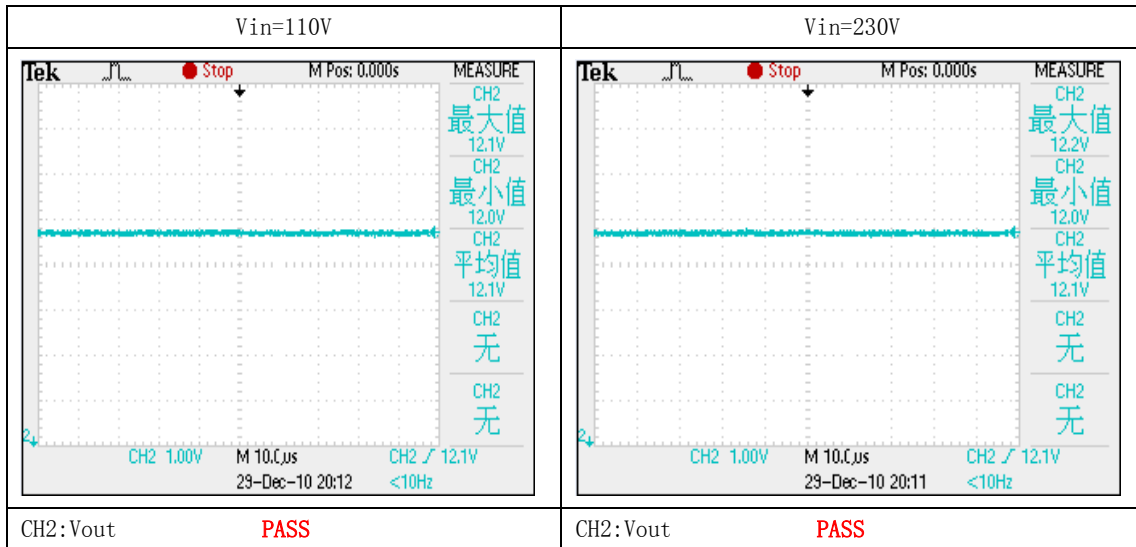
8:Temperature;

1: Load Regulation;

Vout (max)= 12.6V; Vout (min)= 11.4V; Vout= 12.00V ;Iload= 0.00A ;



Vout (max)= 12.6V; Vout (min)= 11.4V; Vout= 12.00V ;Iload= 1.20A ;



2: Line Regulation:

Test Condition: Vin=110V-265V, Iload=0.00A

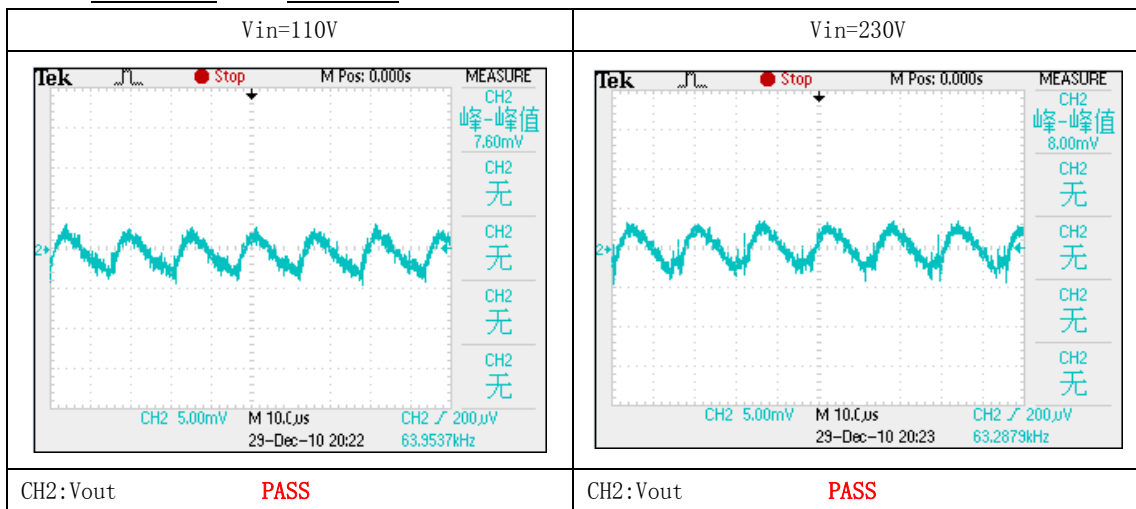
| | | | | | |
|---------|------|------|------|------|------|
| Vin(V) | 110 | 185 | 220 | 235 | 265 |
| Vout(V) | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |

Test Condition: Vin=110V-265V, Iload=1.20A

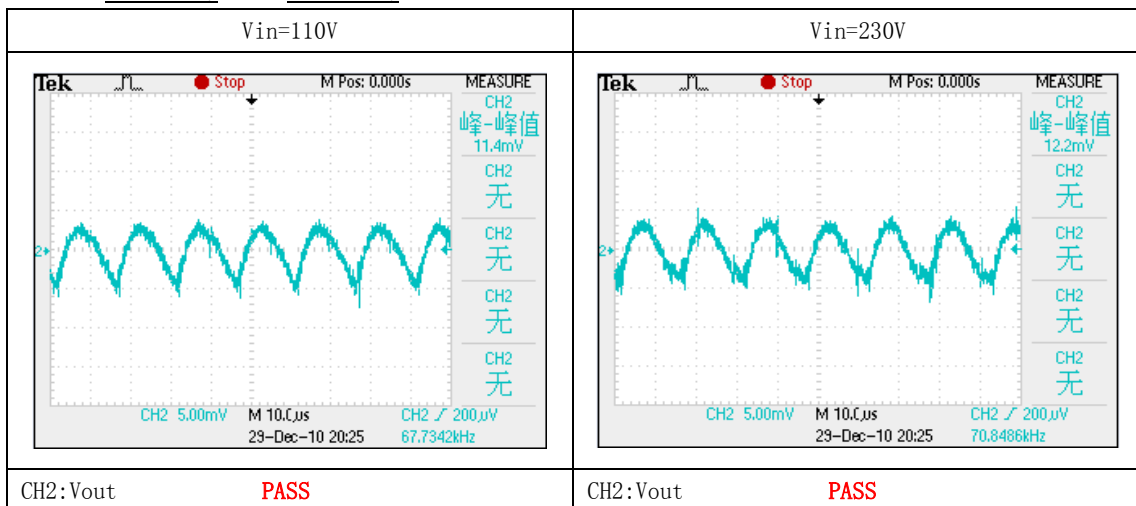
| | | | | | |
|---------|------|------|------|------|------|
| Vin(V) | 110 | 185 | 220 | 235 | 265 |
| Vout(V) | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |

3:Output Ripple Voltage:

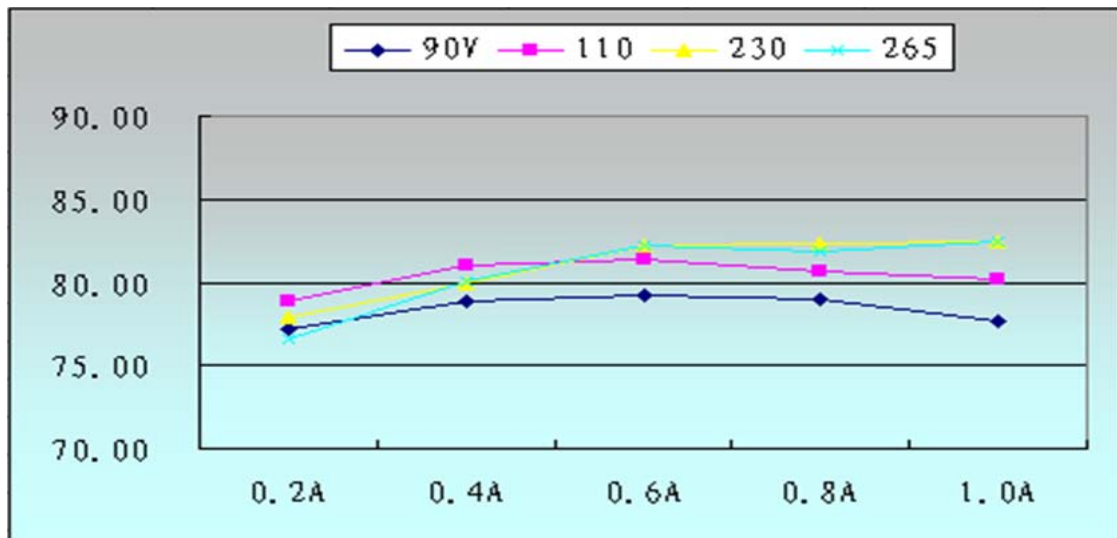
Vout= 12.00V ;Iout= 0.60A ;



Vout= 12.00V ;Iout= 1.20A ;



4:Efficiency:



5:OCP

| | | | | |
|--------|------|------|------|------|
| Vin(V) | 90 | 115 | 185 | 220 |
| OCP(A) | 1.7 | 1.8 | 1.9 | 2.0 |
| Result | PASS | PASS | PASS | PASS |

Notice: $I_{ocp} = (1.3-1.8) I_{out(max)}$;

6:OSP

Test Way: 短路输出端开机或者先开机后短路, 检测 IC 在这种情况下是否具有自我保护功能, 当负载恢复正常后 IC 可以恢复正常工作, 输出正常; 同时检测此时的输入功率的大小, 此时功率越小越好。

| | | | | |
|--------------------|-----------|-----------|-----------|-----------|
| Vin(V) | 90V | 115V | 230V | 265V |
| Pin(W) (Iout=1.0A) | 16.1 | 15.6 | 15.3 | 15.6 |
| Pshort (W) | 0.00-0.25 | 0.00-0.30 | 0.15-0.35 | 0.45-1.29 |
| Result | PASS | PASS | PASS | PASS |

7:Dioe drop Voltage: (Iload=Iout(max));

| | | | | |
|----------|------|------|------|------|
| Vin(V) | 90V | 115V | 230V | 265V |
| Vdrop(V) | 36.8 | 40.0 | 65.6 | 71.2 |
| Voc(V) | 284 | 344 | 480 | 544 |
| Result | PASS | PASS | PASS | PASS |

Notice: Vdrop 为输出级整流管 (SR3100) 两端压降最大差值。

Voc 为开关管集电极对地最大压降。

8:Temperature

Test Condition: $T_a=25^{\circ}\text{C}$, Test Time: 30min;

