



FOR MODEL: ADP-240EB BH/BJ

1 測試注意事項內容，未經工程師許可，不可任意變更。

Test Notice contents shall not be changed or revised without engineer permission.

2 此測試規格用於主線測試，所有項目均需被測試，因設備或線速限制無法全數測試時，需測試 worst case, QC 需按抽樣標準測試所有 Item 不可只測試主線測試項目。

The production line shall perform all or worst test items/conditions, and QC shall follow the sampling plan to perform all items/conditions not just the worst condition as production did.

3 測試注意事項：

- 所有 ATS 測試時，須偵測 CONNECTOR 端之電壓。
- 所有測試外掛 0.1uF 高頻電容 & 1800uF 系統電容，要掛在治具上。
- 測試 FG 線, PE 對二次側的 GND, 量測阻抗  $470 \pm 10\%$
- 設定 Von 15V.
- ISN 測試 以 over 3dB 判定
- Power saving 測試時由 0W 往上進行量測

4 燒錄 IC : NA

5 小板動態測試: NA

6 手調測試站:

- VR 調整測試條件如下: NA
- Full Load Test: 檢查滿載輸出是否符合規格
- Min. Load Test: 檢查輕載輸出是否符合規格
- OTP Test :

Load Condition : 12A

敘述測試方法, 例如: 短路 NTC31, 檢查輸出電壓是否 Latch off.



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DESCRIPTION :

測試規格 (Test Specification)

MODEL NO. :

ADP-240EB BXX SERIES

Date	Drawn	Design (EE)	Design (ME)
05/17'24	王玉玲	顏偉任	陳俊豪/張伯毅

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**e. OVP Test :**

Load Condition : 0A or 12A

測試方法,例如: short IC51 pin1 and pin2,檢查輸出電壓是否小於 27V, OVP 動作模式為 Latch off.

**f. LED 狀態: NA**

**g. AC On/Off:**

Power supply 連續開關機 On= 1 秒, Off= 1 秒, 5 次後, 必須無損壞情形。

**7 Function test (ATS) procedure:**

**Input Specification Table:**

INPUT VOLTAGE	MINIMUM	MAXIMUM	NOMINAL(RATED)
LOW RANGE	90 VAC	132 VAC	100 VAC
HIGH RANGE	180V AC	264V AC	240V AC

**Output Specification Table:**

OUTPUT	MINIMUM	MAXIMUM	NOMINAL(RATED)
Voltage (Vdc)	19	21	20
Loading (Amp)	0A	12A	12A

Test Item	Vin	Load	Spec	Remark
Inrush Current	264V/50Hz; Phase 90°	11.8A	No damage	Cold start
Turn On Time	100V/50Hz	12A	<3Sec	
Hold-up Time	100V/50Hz	12A	>5ms	
Line Regulation	90/264V 47/63Hz	0A	19~21V	
Line Regulation	90/264V 47/63Hz	12A	19~21V	
Load/Combine Regulation	90V/264V 50/60Hz	0A,12A	19~21V	
Over shoot	90/264V 47/63Hz	12A	<21V	
Ripple & Noise	90V/264V 50/60Hz	12A	<350mVp-p	, BW:20MHz
Sync Dynamic	90V/47Hz 264V/63Hz	0.05A~12A	19~21V	S/R: 2.5A/uS, 100Hz~100KHz
Over Voltage Protection	90/264Vac	12A	<27V	Latch off
Short Circuit Protection	90/264Vac	Min. Load Turn on then short	Latch off	



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Test Item	Vin	Load	Spec	Remark
Over Current Protection	90/264Vac		14.4~18A	Latch off
Input Current	100V/50Hz	12A	<3.5A	
Harmonic Current Power Factor	230V/50Hz	12A	PF >0.9 , EN-61000-3-2	
Average Efficiency	115V/60Hz 230V/50Hz	25%, 50%, 75% & 100% Load	>88%	Cold
Pin at No Load	230V/50Hz	No Load	<0.15W	輸出端不可接到負載 通電後等待 1min 積分 3mins
Pin at standby Load	115V/60Hz 230V/50Hz	18W 11W 5~6.5W 3W 1.65W 1.5W 1W 0.25W	< 23.5W < 14W Eff.>80 <5W <3W <2.2W <1.6W <0.45W	通電後等待 1min 積分 3mins  18W 測試數據 Pin 小於 23.2W 時，不判定 CPK
Peak Load	100V/50Hz 240V/50Hz	24A/2ms ~ 10.8A/18ms	> 18.3V	
Peak Load	100V/50Hz 240V/50Hz	27A/1.5ms ~ 10.5A/13.5ms	> 18.3V	
Surge Load	100V/50Hz 240V/50Hz	12A(9min) to 14.4A(1min)	> 18.5V	

Note 1: After completes required DVT test matrix, identifies and selects the worst case condition for the Production MTR. It is not required that all test conditions be tested. Example: If worst case condition for Output Ripple is minimum input voltage and maximum dc load, then that is the test condition to be used.

## 8 Safety

### 8.1 Hi-POT test:

8.1.1 PRIMARY to SECONDARY use 3000+10% Vac test , (上昇時間: DC=1Sec, AC=0.1Sec).  
Test time=1sec. Arcing current=(EVT1: 5mA, EVT2,3/DVT: 8mA, PVT/MP: 10mA)  
Hi-Limit current=10mA. Lo-Limit current=0.01mA.

### 8.2 Insulation Resistance (IR)test :

8.2.1 PRIMARY to SECONDARY use 500Vdc test; Insulation resistance limit: > 30Mohm.



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### 8.3 Leakage Current

The AC leakage current is less than **110uA** when adapter is connected to **240V/50Hz** at normal condition.  
Test with AC cable 80cm.

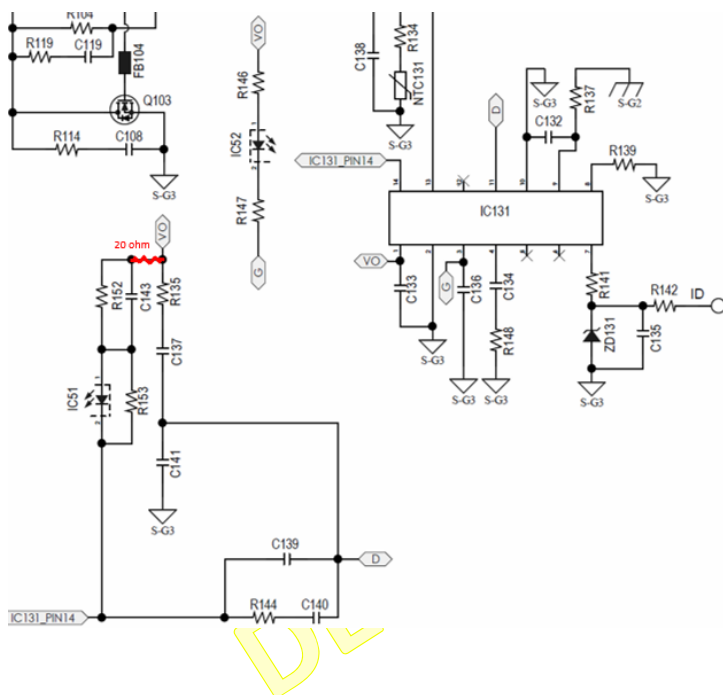
### 9 Burn-in 測試作業規範

the maximum temperature can not be over 35°;

### 10 I2C 測試作業規範: NA

### 11 FRU Data Barcode Read/Write 測試作業規範: NA

### 12 loop gain test:



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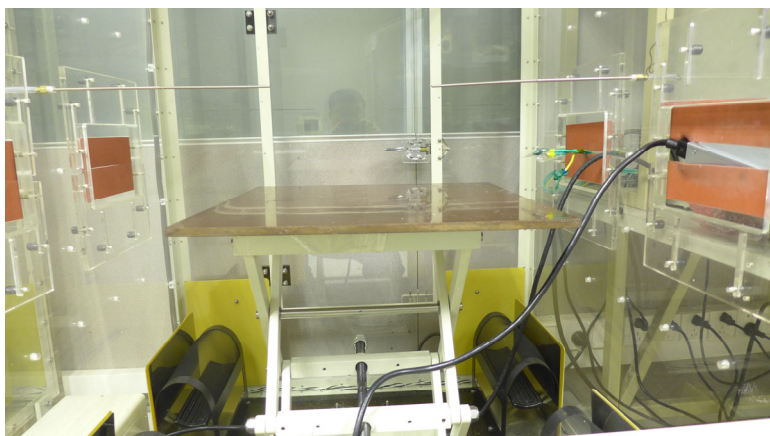
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### 13 Test set-up:

- (1) EMI/RFI test follow MPBG test set-up.
- (2) Thermal test using Bakelite in MPBG standard chamber.

Bakelite set up as blow (Demand for customer):

Case thermal test Set up 參考圖示, 電木貼鐵架



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#### 14. DC Plug OTP

ID pin 連接 5.1K 串聯 5.1K, 並聯, 1K 串聯開關

當 開關打開時:

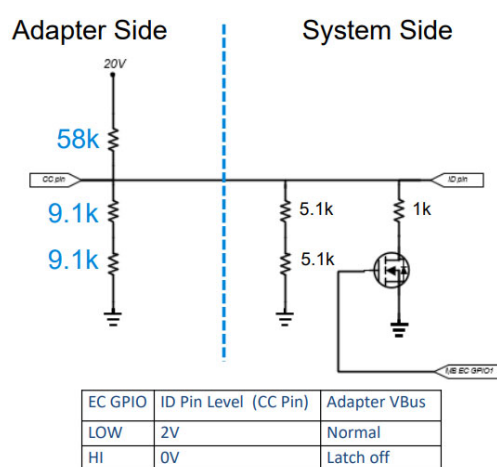
ID pin 電壓 必須介於 1.8V- 2.2V

當 開關關閉時:

ID pin 電壓 必須 < 1V

模擬 OTP 動作, 且 Power Latch.

#### OTP Mode



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