

凱鈺科技股份有限公司  
*TM Technology, Inc.*

文件名稱： <b>T8602 Demo board Test Report</b>			
Customer:		Model No :	CF0016
FAE:	Bill	DATE:	2011-08-08

文件等級  一般級  機密級  極機密

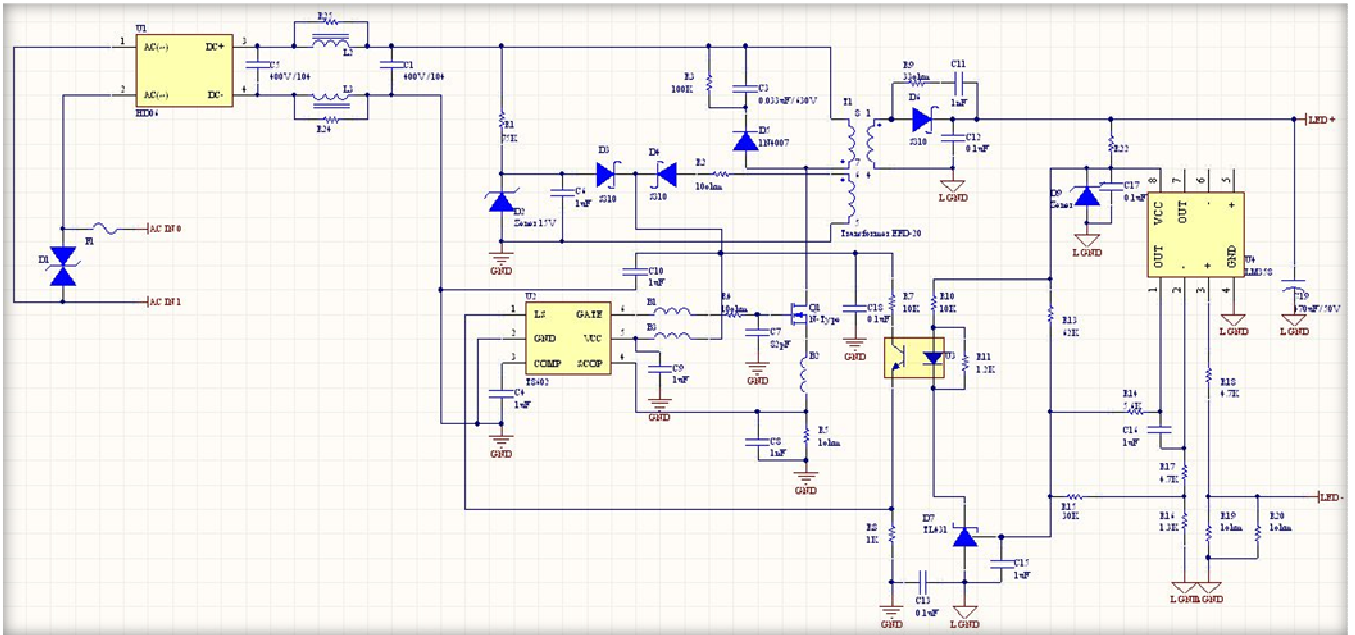
**Electronic Specification**

Item	Requiring		
	Min	Typ	Max
<b>Input</b>	90Vac	---	265Vac
<b>Output</b>	---	52.25V / 326mA	---

**Measuring instrument**

Item	Model
AC Power Source	6600
Meter	FLUKE 115 Chroma-66202(PowerMeter)
Oscilloscope	Tektronix
LOAD	LED String; 17S1P (LED spec:3.3V / 326mA)

## Schematic



## Module Profile

Top layer



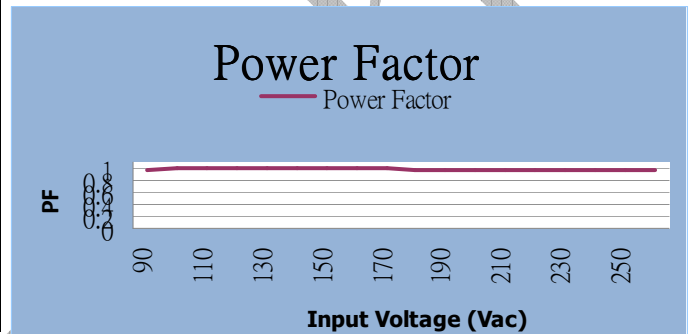
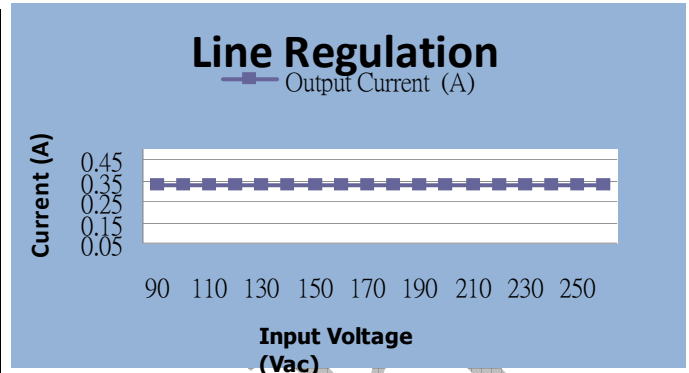
## BOM list

No.	Symbol	Name	Type / Number	Specification	Package / Size	Unit
1	U1	AC BRIDGE	HD06	600V / 0.8A	DIP	1
2	U2	DRIVER IC	T8602	13.8V~16.8V	SOT23-6	1
3	U3		PC817C		DIP	1
4	U4	Amplifiers	LM358		MINI SOP8	1
5	D1	Varistor	TVR07431D	275VAC / 07-D	S type / Φ7mm	0
6	D2	ZENER DIODE	15V	15V	SOD-323	1
7	D3	SCHOTTKY DIODE	FM05100-N-H	100V / 0.5A	SOD-323	1
8	D4	SCHOTTKY DIODE	FM05100-N-H	100V / 0.5A	SOD-323	1
9	D5	Passivated Rectifier		1000V / 1.0A	DO-214A	1
10	D6	Fast Rectifier	UGC20DH	200V / 2A / 35nS	DO-214A	1
11	D7	Regulator	TL431		SMD	1
12	D9					0
13	F1	FUSE		250V 1A	DIP	0
14	L2	Inductor	GSRCU0810-4	4mH	DIP	0
15	L3	Inductor	GSRCU0810-4	4mH	DIP	0
16	C1	Capacitor		0.33uF / 630V	DIP	1
17	C5	Capacitor		0.15uF / 450V	DIP	0
18	C3	Capacitor		0.033uF / 630V	DIP	1
19	C4	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
20	C6	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
21	C7	Multilayer Ceramic Capacitor		2.2nF / 50V	0603	0
22	C8	Multilayer Ceramic Capacitor		2.2nF / 50V	0603	0
23	C9	Multilayer Ceramic Capacitor		1uF / 16V	0603	1
24	C10	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
25	C11	Multilayer Ceramic Capacitor		100pF / 50V	0603	0
26	C12	Multilayer Ceramic Capacitor		0.1uF / 16V	0805	1
27	C13	Multilayer Ceramic Capacitor		103 / 1KV	DIP	1
28	C15	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
29	C16	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
30	C17	Multilayer Ceramic Capacitor		1uF / 16V	0805	1
31	C18	Multilayer Ceramic Capacitor		0.1uF / 16V	0805	1
32	C19	Electrolytic Capacitor		100uF / 100V	DIP	1
33	R1	Chip Resistor		75KΩ±5%	0805	1
34	R2	Chip Resistor		22Ω±5%	0603	1
35	R3	Chip Resistor		100K±5%	0603	1
36	R4	Chip Resistor		10Ω±5%	0603	1
37	R5	Chip Resistor		0.5Ω//0.5Ω ±1%	1206	1
38	R7	Chip Resistor		10K±5%	0603	1
39	R8	Chip Resistor		1K±5%	0603	1
40	R9	Chip Resistor		20Ω±5%	0603	0
41	R10	Chip Resistor		10K±5%	0603	1
42	R11	Chip Resistor		1.2K±5%	0603	1
43	R13	Chip Resistor		62K±5%	0603	1
44	R14	Chip Resistor		5.6K±5%	0603	1
45	R15	Chip Resistor		30K±5%	0603	1
46	R16	Chip Resistor		1.3K±5%	0603	1
47	R17	Chip Resistor		4.7K±5%	0603	1
48	R18	Chip Resistor		4.7K±5%	0603	1
49	R19	Chip Resistor	0.39ohm	0.6Ω±1% / 0.25W	1206	1
50	R	Chip Resistor	2ohm	0.2Ω±1% / 0.25W	1206	1
51	R22	Chip Resistor	12kohm	12K±5%	0603	1
52	R24	Chip Resistor				0
53	R25	Chip Resistor				0
54	T1	Transformer	EE16		DIP	1
55	B1	Bead	0.0ohm	FBM-10-100505-301T	0603	0
56	B2	Bead	0.0ohm	FBM-10-100505-301T	0603	0
57	B3	Bead				0
58	Q1	MOSFET	2N60L	650V / 2A / RDSon 5Ω @ 10VGS	TO-252	1

## Performance ( Line & Load Regulation )

### Line Regulation

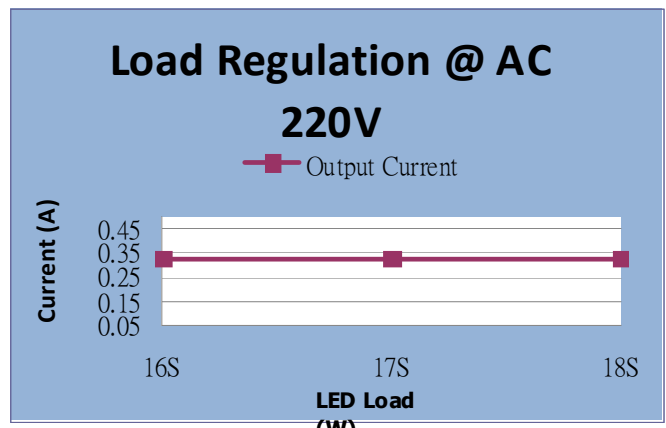
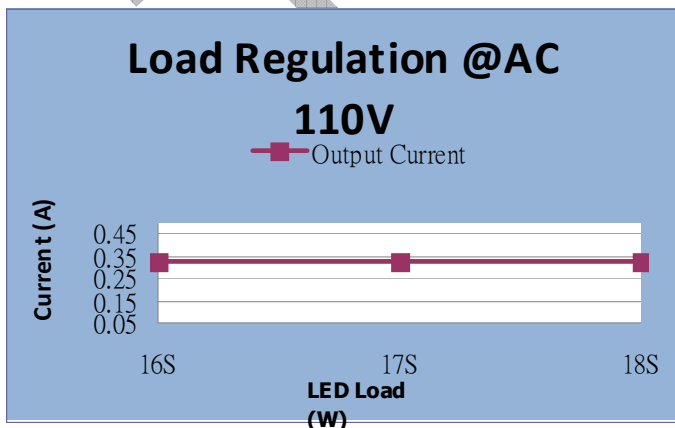
ACInput		Output			
(Vac)	Input	Vf	Current	Power Factor	Efficiency
90	20.69	52.25	0.326	0.98	82
100	20.47	52.25	0.326	0.99	83
110	20.27	52.25	0.326	0.99	84
120	20.12	52.25	0.326	0.99	85
130	20.05	52.25	0.326	0.99	85
140	19.93	52.25	0.326	0.99	85
150	19.88	52.25	0.326	0.99	86
160	19.84	52.25	0.326	0.99	86
170	19.81	52.25	0.326	0.99	86
180	19.81	52.25	0.326	0.98	86
190	19.81	52.26	0.326	0.98	86
200	19.82	52.26	0.326	0.98	86
210	19.83	52.26	0.326	0.98	86
220	19.85	52.26	0.326	0.98	86
230	19.89	52.26	0.326	0.98	86
240	19.94	52.25	0.327	0.97	86
250	20.00	52.24	0.327	0.97	85
265	20.12	52.26	0.327	0.97	85



### Load Regulation

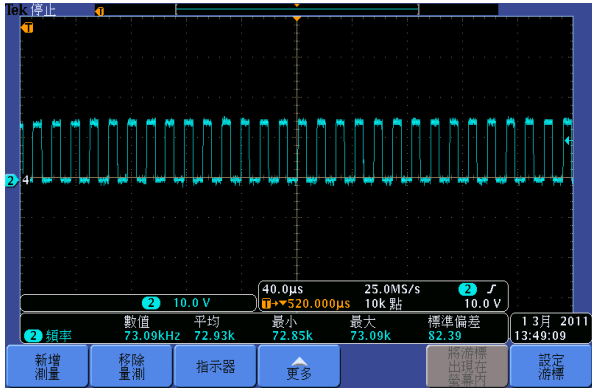
ACInput		Output				
(Vac)	watt	Inpur W	Vf	Current	PF	Efficiency
110	16S	18.92	48.96	0.327	0.98	85
	17S	20.20	52.3	0.326	0.99	84
	18S	21.30	55.46	0.326	0.99	85

ACInput		Output				
(Vac)	watt	Inpur W	Vf	Current	PF	Efficiency
220	16S	18.74	48.87	0.327	0.98	85
	17S	19.87	52.24	0.326	0.98	86
	18S	20.96	55.33	0.326	0.98	86

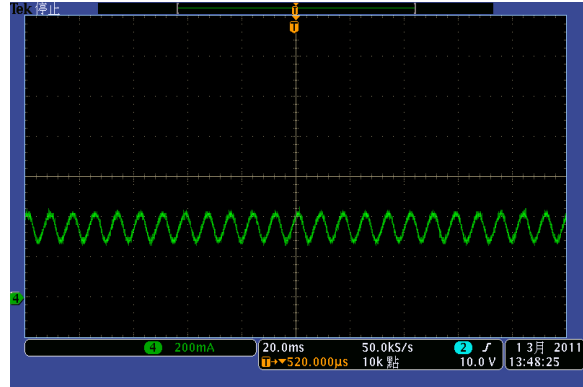


# Waveform

GATE



LED Current



TMTECH