

SPECIFICATION APPROVAL SHEET

CUSTOMER Element14 Asia

CUST P/N 28 19336

MODEL NO M052240E111

DESCRIPTION 5.25V/2.4A MICRO USB ADAPTER

ITEM NO _____

FILE NO EN150923A01

CUSTOMER DISPOSITION:

Prepared by	Checked by	Approved by	

- APPROVED
- CONDITIONAL APPROVED
- REJECTED

Prepared by	Checked by	Q. C	Approved by

MCM Electronics, Inc.
650 Congress Park Dr.
Centerville, Ohio 45459
TEL: 800-543-4330 FAX: 800-765-6960

CONTENTS

- 1 Product description**
- 2 Electrical Requirement**
 - 2-1 Input Requirement
 - 2-1-1 Input Voltage
 - 2-1-2 Input Frequency
 - 2-1-3 Input Current
 - 2-1-4 Inrush Current
 - 2-2 Output Requirement
 - 2-2-1 Output Voltage ,Current and Ripple
 - 2-2-2 Output Voltage Regulation
 - 2-2-3 Ripple and Noise
 - 2-2-4 Standby power
 - 2-2-5 Efficiency
 - 2-2-6 Start up/rise time
 - 2-3 Protection
 - 2-3-1 Short Circuit Protection (Auto recovery)
 - 2-3-2 Overcurrent protection
- 3 Environmental Requirements**
 - 3-1 Temperature
 - 3-2 Humidity
- 4 Reliability**
 - 4-1 Mean Time between Failures (MTBF)
 - 4-2 Temperature
- 5 Burn-in**
- 6 SAFETY REQUIREMENT**
 - 6-1 Hi-Pot Test
 - 6-2 Insulation Resistance Test
 - 6-3 Leakage Current Test
 - 6-4 Safety
 - 6-5 CE
 - 6-6 EMI for both Conduction & Radiation
- 7 Mechanical**
 - Attachment1 Outline drawing
 - Attachment2 Packaging

1 Product description

This product is a AC to DC transfer device that provides 12.6Watts of single 5.25V output with a constant voltage source and it is constructed with class II basic isolation level (AC/DC, 5.25V/12.6W, Class II)

2 Electrical Requirement

2-1 Input Requirement

2-1-1 Input Voltage

Nomal Voltage: 100 to 240Vrms

Voltage range : 90 to 264Vrms

2-1-2 Input Frequency

From 47Hz to 63Hz

2-1-3 Input Current

<0.35Arms at 100Vac input

<0.20Arms at 240Vac input

2-1-4 Inrush Current

a: 30A max at cold-start at 25 °C,DC output full-loading and 115Vac input.
25°C 115V 30A

b: 60A max at cold-start at 25 °C,DC output full-loading and 230Vac input.
25°C 230V 60A

2-2 Output Requirement

2-2-1 Output Voltage ,Current and Ripple

Output Voltage	Minimum Output Voltage	Maximum Output Voltage	Output Current	Output Ripple (Vp-p)
5.25Vdc	4.99Vdc	5.51Vdc	2.4A	60mV

2-2-2 Output Voltage Regulation

The total output voltage regulation shall met above table (as you see that) , including the effects of line voltage variations, load current, ripple and noise, and the AC component of the load current .The effect of dynamic load changes is not included in this limit

2-2-3 Ripple and Noise

Tested ripple voltage is measured using oscilloscope with bandwidth limited to 20MHz. A 47uF electrolytic capacitor and a 0.1uF ceramic capacitor shall be connected to the connector in parallel.

2-2-4 Standby Power

When line input voltage(110Vac or 230Vac),the Standby Power must be less than 0.3W /110Vac (230Vac) 0.3W

2-2-5 Efficiency

When line input voltage(110Vac or 230Vac), the efficiency shall be 73% or better under maximum load.

2-2-6 Start up/rise time

The output voltage should rise from 0Voltage to within regulation in less than 20msec with full loading.

2-3 Protection

2-3-1 Short Circuit Protection (Auto recovery)

The power supply shall not be damaged by short between DC output and DC ground

3 Environmental Requirements

3-1 Temperature

Operation : 0°C to 40°C

Storage: -40°C to 70°C

3-2 Humidity

Operation : 20%-85%

Storage: 10%-95%

4 Reliability

4-1 Mean Time between Failures (MTBF)

The power supply shall be designed and produced to have a mean time between failures (MTBF) of 20,000 operating hours

4-2 Temperature

Less than 60°C at nominal 100-240Vac input DC out put full loading and environment temperature 25+/-1°C on top of plastic case

5 Burn-in

100% burn-in with 80-100% loading & 25-35°C environment temperature

6 SAFETY REQUIREMENT

6-1 Hi-Pot Test

Apply 3000Vac between primary and secondary for 1 minute. The leakage current should be less than 10mA

6-2 Insulation Resistance Test

Measure the resistance between primary and secondary with a 500V Megaohm meter. The resistance shall be greater than 100Mohm.

6-3 Leakage Current Test

Leakage current shall be less than 0.25mA at 254Vac/50Hz

6-4 Safety

Safety referring standards		File Record
KC(KETI)	K60950	
UL	UL60950	
TUV-GS	EN60950	
CE	IEC950	

6-5 CE

Referring Standards	Test Specification
ESD	Contact 8KV
ESD	Air 15KV
RF	Fr:26MHz-1.0GHz,Field Strength 3V/M
EFT	2KV on AC power line
SURGE	1KV (L-N)&2KV (L,N-PE)

6-6 EMI for both Conduction & Radiation

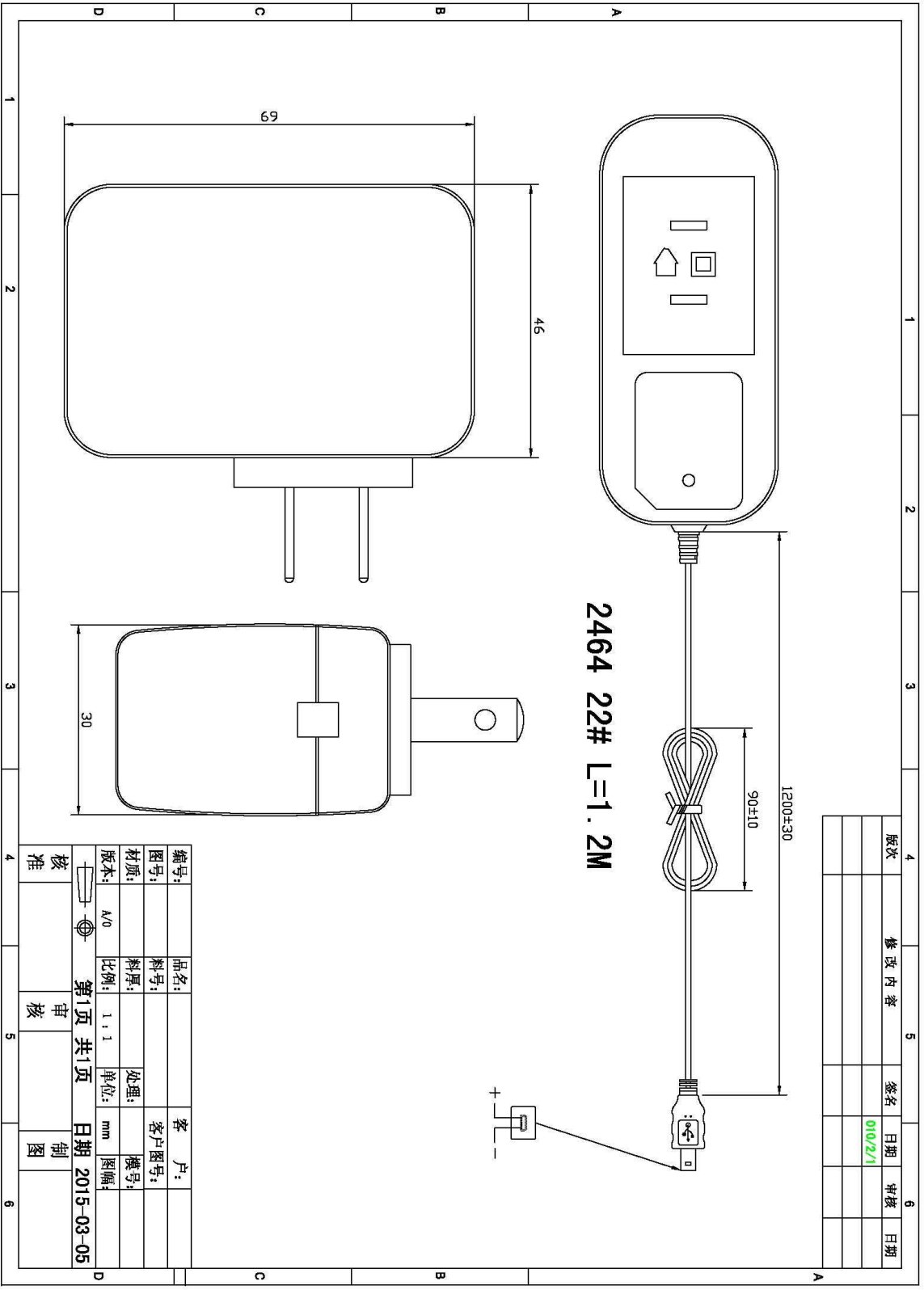
Referring Standards	Specification
FCC	Part 15,Class B
CISPR	Pub 22, Class B
CCC	GB8898

7 Mechanical

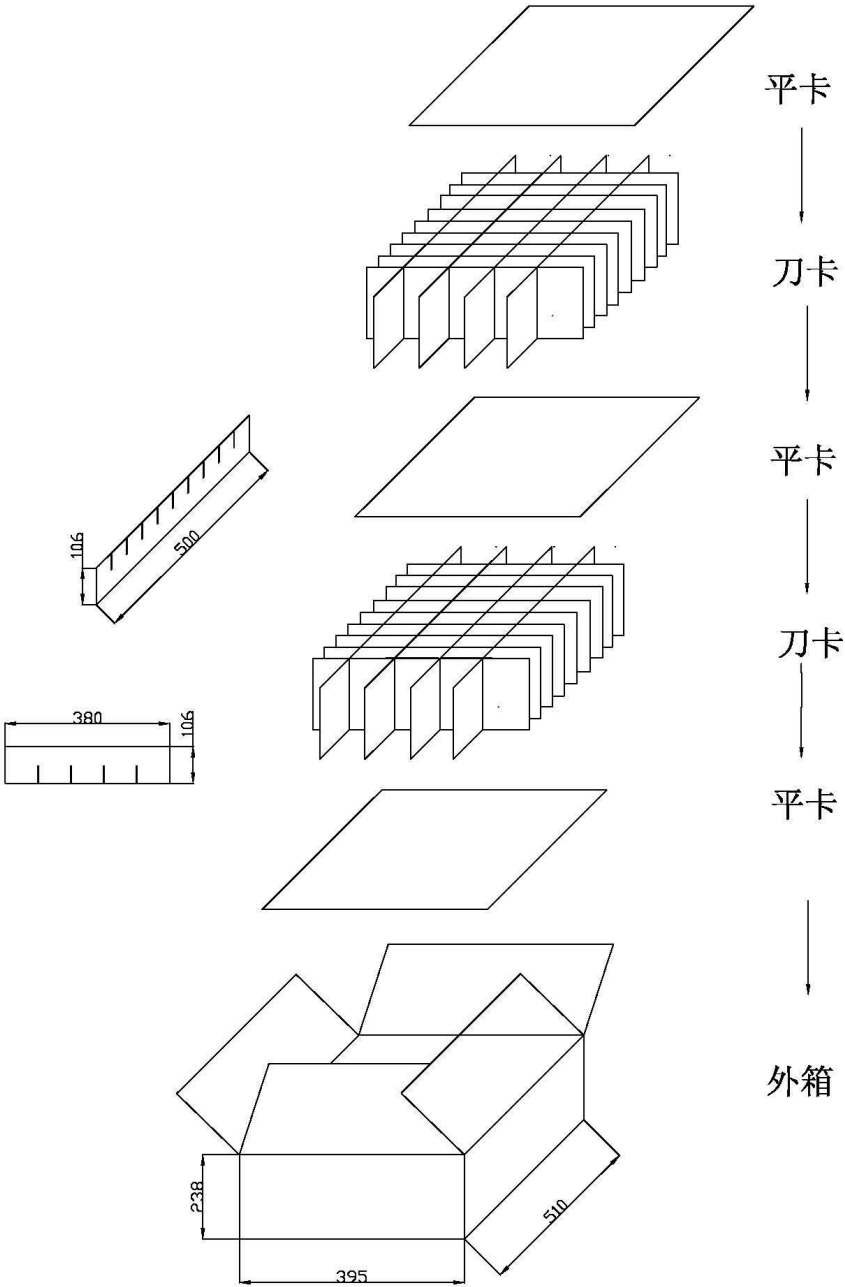
7-1 Plastic case : PC+ABS GE C2950 material, color Black

7-2 Physical size:69mm(L)*30mm(W)*46(H)

7-3 DC cord: UL2464 22Awg , MICRO 5 PIN I plug(Centre+), 1200mm
Black



PACKAGING



LABEL

