



# SPECIFICATION

**PART NO.** 101240FTAC0M401ZA

**DESCRIPTION.** RJ45 2x4 PORT W/O LED ,W/TRANSFORMER

**CUSTOMER.** \_\_\_\_\_

**REV. :** P0

**REV. DATE :** 2006 / Aug / 16

	APPROVED	CHECKED	PREPARED
NAME	Kenny Chen	Bryant Tu	Nicole Lee

## 實盈股份有限公司

## SUYIN CORPIRATION

**TAIWAN HEAD OFFICE :**

NO. 377.Fu-The First Re., His-Chih,  
 Taipei Hsien, Taiwan, R.O.C.  
 TEL : (886) 2-2694-7697 (Rep)  
 FAX : (886) 2-2694-8407 2694-8047  
 E-mail : [Lesley@suyin.com.tw](mailto:Lesley@suyin.com.tw)

**SUYIN ELECTRONICS (DONGGUAN) CO., LTD.**

Suyin Road, San Zhong,  
 Qing Xi Town, Dongguan City,  
 TEL : (886) 2-2694-7697 (Rep)  
 FAX : (886) 2-2694-8407 2694-8047  
 E-mail : [kevin@suyin.com.tw](mailto:kevin@suyin.com.tw)

**HONG KONG BRANCH OFFICE :**

TEL : (852) 2-559-6017  
 FAX : (852) 2-5596461  
 E-mail : [suyin@netvigtor.com](mailto:suyin@netvigtor.com)

**KOREA BRANCH OFFICE :**

TEL : (82) 2-559-6017  
 FAX : (82) 2-5596461  
 E-mail : [yang@sdint.co.kr](mailto:yang@sdint.co.kr)

**GERMANY BRANCH OFFICE :**

TEL : (+49) 0-8561/238-8880  
 FAX : (+49) 0-8561/238/8888  
 E-mail : [mail@suyin.de](mailto:mail@suyin.de)

**JAPAN BRANCH OFFICE :**

TEL : (81) 45-266-2488  
 FAX : (81) 45-266-2489  
 E-mail : [kanashiro@suyinjapan.com](mailto:kanashiro@suyinjapan.com)

**SINGAPOER BRANCH OFFICE :**

90 Lorong 23 Geylang #02-01/02/03 Yong  
 DA Industrial Building Singapore 388393  
 TEL : (65) 6256-6481  
 FAX : (65) 6256-6483  
 E-mail : [alice@suyin.com.sg](mailto:alice@suyin.com.sg)

**U.S.A BRANCH OFFICE :**

TEL : (1) 714-750-0378  
 FAX : (1) 714-750-0379  
 E-mail : [steven@suyinusa.com](mailto:steven@suyinusa.com)

**ISRAEL BRANCH OFFICE :**

TEL : (1) 714-750-0378  
 FAX : (1) 714-750-0379  
 E-mail : [sales@suyin.co.il](mailto:sales@suyin.co.il)

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### 1 P/N SPECIFICATION

SUYIN P/N: **101 240 F** **T** **AC** **0** **M4** **01** **ZA**  
A B C D E

A. Transformer Speed: **10/100/1000 Base-T**  
 LED Polarity: **W/O**

B. Schematic: Refers to section 5.1

C. LED Color Code:

w/o LED: 0		RIGHT LED					
		YELLOW	GREEN	ORANGE	G/O	G/Y	O/G
LEFT LED	YELLOW	1	7	D	K	N	R
	GREEN	2	8	E	L	P	S
	ORANGE	3	9	F	M	Q	T
	G/O	4	A	G	U		
	G/Y	5	B	H		V	
	O/G	6	C	J			W

D. RJ Contact Plating:

- M2: Gold Flash selected Gold plating over 50 u" min. Nickel
- M3: 10u" selected Gold plating over 50 u" min. Nickel
- M4: 15u" selected Gold plating over 50 u" min. Nickel
- M5: 30u" selected Gold plating over 50 u" min. Nickel
- M6: 50u" selected Gold plating over 50 u" min. Nickel.

E. Mechanical Series: Refers to section 2.1~2.2

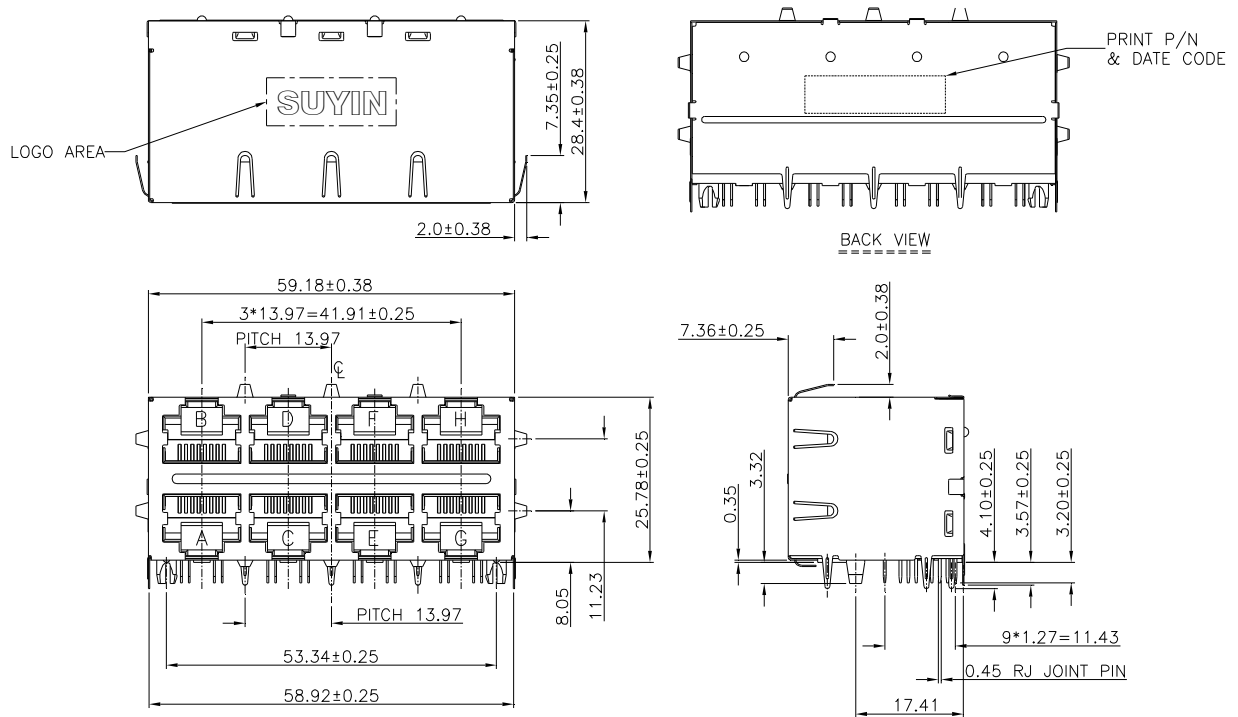
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### 2 MECHANICAL DIMENSIONS

#### 2-1 Dimensions



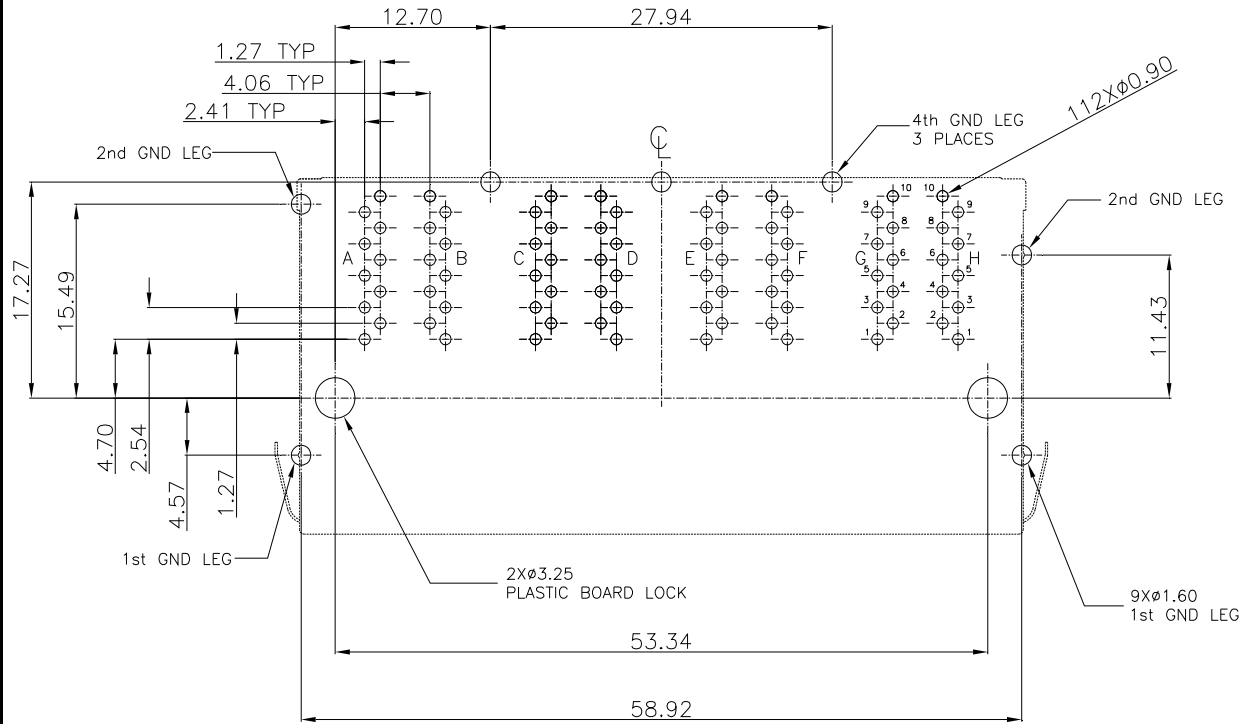
General Tolerance : 0~10mm:  $\pm 0.10$   
 10~30mm:  $\pm 0.20$   
 30~ mm:  $\pm 0.30$

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### 2-2 PCB Layout



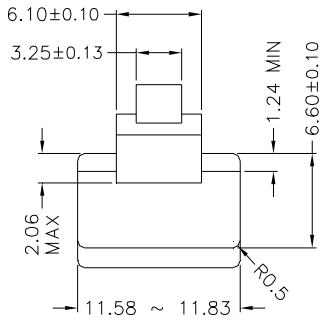
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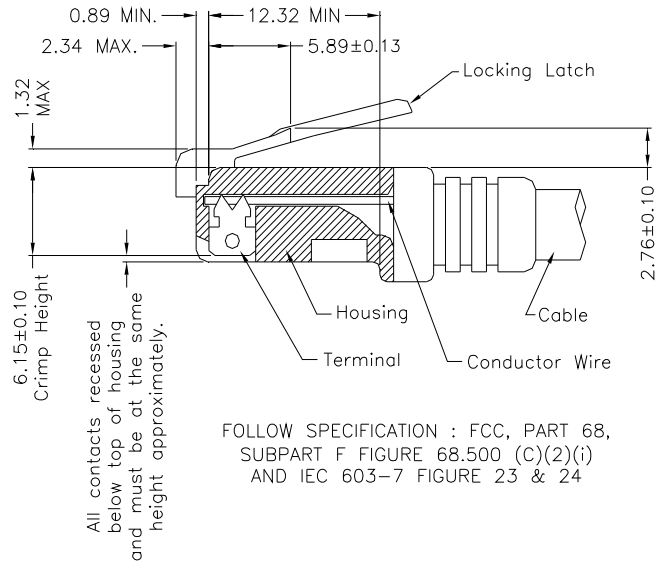
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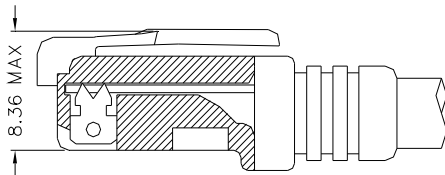
### 3 RECOMMEND RJ PLUG SPECIFICATION



- \* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- \* Durability : 750 cycles generally



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(i) AND IEC 603-7 FIGURE 23 & 24



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(ii)

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### 4 MATERIAL SPECIFICATION

4-1 RoHS Compliance per EU Directive 2002/95/EC

4-2 Plastic Housings:

- A. Main Housing: Nylon 9T, UL 94V-0, Black
- B. RJ Contact Insert: PBT, UL94V-0, Black
- C. RJ Contact Housing: Nylon9T, UL94V-0, Black
- D. Internal Module Cover: PBT, UL94V-0, Black
- E. Transformer Housing: Nylon 9T, UL94V-0, Black
- F. Solder Pin Spacer: PBT, UL94V-0, Black

4-3 Terminals:

- A. RJ Contacts: Phosphor Bronze
- B. RJ Solder Pins: Brass
- C. Transformer Housing Solder Pins: Brass

4-4 Shields:

- A. Front and Back Shield: Stainless Steel

4-5 Plating:

- A. RJ Contact: As P/N specified
- B. RJ Solder Pins: 100u" min. Matte Tin over 50u" Nickel under-plating
- C. Transformer Housing Solder Pins: 100u" min. Matte Tin over 50u" Nickel under-plating
- D. Shield Grounding Legs: Pre-soldering, Sn/ Ag/ Cu ( 96.5/ 3/ 0.5 )

4-6 PCB: FR-4, Four Layer PCB

4-7 Internal Solder Joints: Sn/ Ag/ Cu ( 96.5/ 3/ 0.5 )

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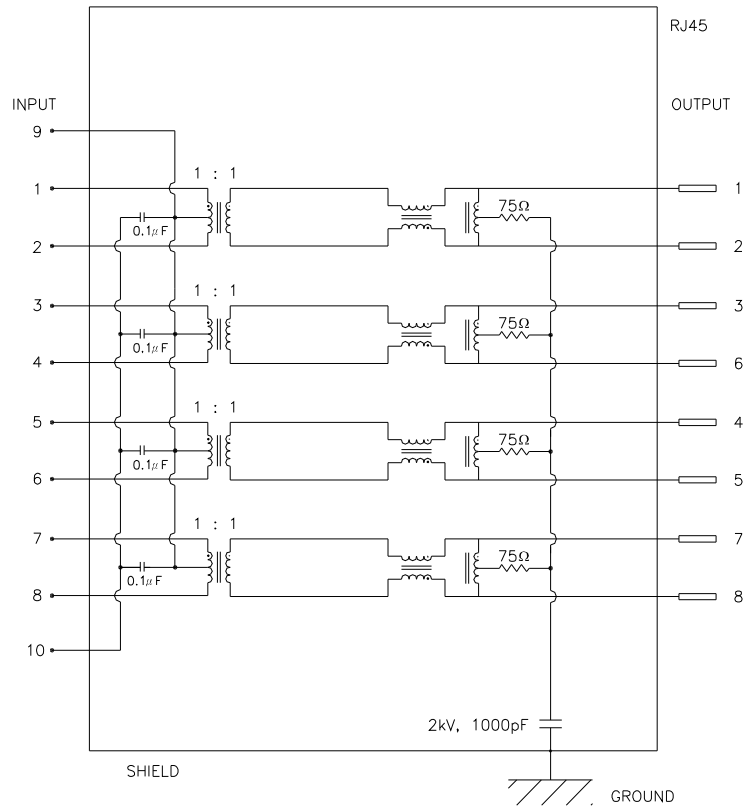
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### 5 ELECTRICAL CHARACTERISTICS

#### 5-1 Schematic



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5-2 Transmitter & Receiver Filter:

Insertion Loss (dB MAX)	Return Loss at 100Ω (dB MIN)			
1~125MHz	1~30MHz	30~60MHz	60~80MHz	80~100MHz
-1.2	-18	-16	-12	-10

5-3 Common Mode Rejection @ 1~100 MHz: -30dB MIN

5-4 Cross Talk @ 1~100 MHz: -25dB MIN

5-5 Inductance @ 100KHz/ 0.1V, 8mA DC BIAS: 350μH MIN

5-6 HiPot Test: 1500Vrms, 60sec

## 6 OPERATING & TEST REQUIRMENTS

Product is designed to meet electrical, mechanical and environmental performance requirements specified below. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified

6-1 Operating Temperature Range: 0°C TO +70°C

6-2 Storage Temperature: -40°C to 85°C

6-3 Ratings:

1. Insulation Resistance: 500M Ohm (MIN)
2. Dielectric Withstanding Voltage: 1000 VAC



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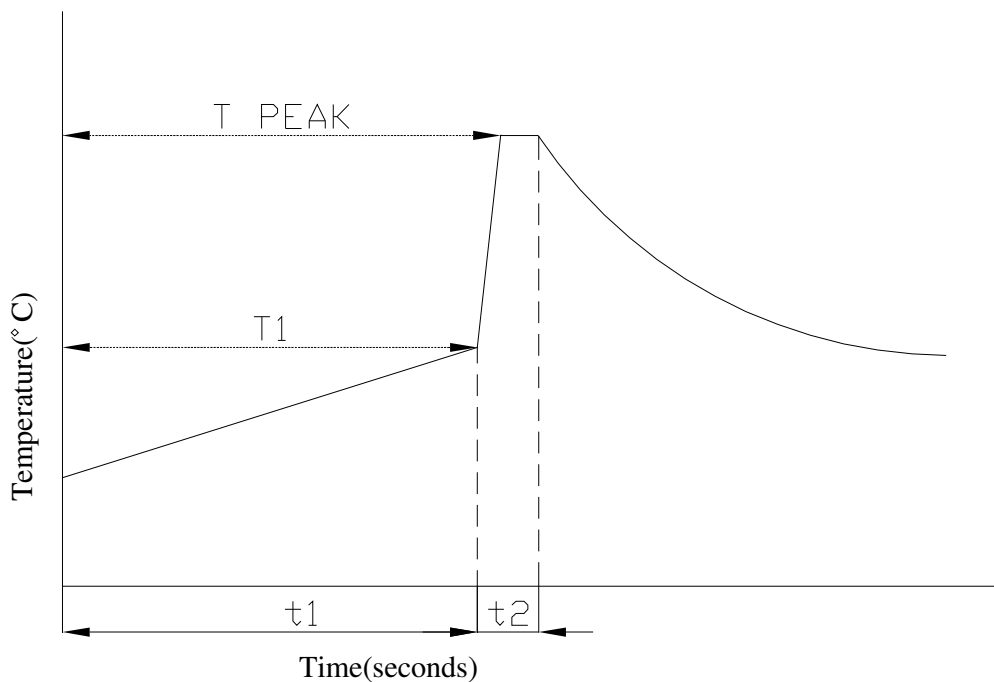
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### 7 STORAGE REQUIRMENTS

All products shall be packaged against any physical damage and corrosion during shipment or in storage.

### 8 RECOMMEND WAVE SOLDERING PROFILE



PARAMETER	REFERENCE	LEAD FREE SPECIFICATION
PREHEAT TEMPERATURE GRADIENT		+1~4°C/sec
PREHEAT TIME	$t_1$	2~3 MIN
PREHEAT TEMPERATURE	$T_1$	>100°C
SOLDER POT TEMPERATURE	T PEAK	260°C ±5°C
DWELL TIME	$t_2$	3.5 SEC
PEAK BOARD TOP TEMPERATURE		190°C
COOLING TEMPERATURE GRADIENT		-6°C/SEC MAX.