ISO 9001 : 2000 TÜV CERT Cert.No.:0410020138

SPECIFICATION

PART NO. 020180MF0N2M409ZA

DESCRIPTION. RJ45+STACK USB W/LED & TRANSFORMER

CUSTOMER. _____

REV. : P0 **REV. DATE : 2006 / Aug / 8**

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1 P/N SPECIFICATION

SUYIN P/N: **020180M** **F** **0N** **2** **M4** **09** **ZA**
A B C D E

A. Transformer Speed: 10/100 Base-T
LED Polarity: Reverse

B. Schematic: Refers to section 6.1

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			
	G/Y	5	B	H			
	O/G	6	C	J			

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

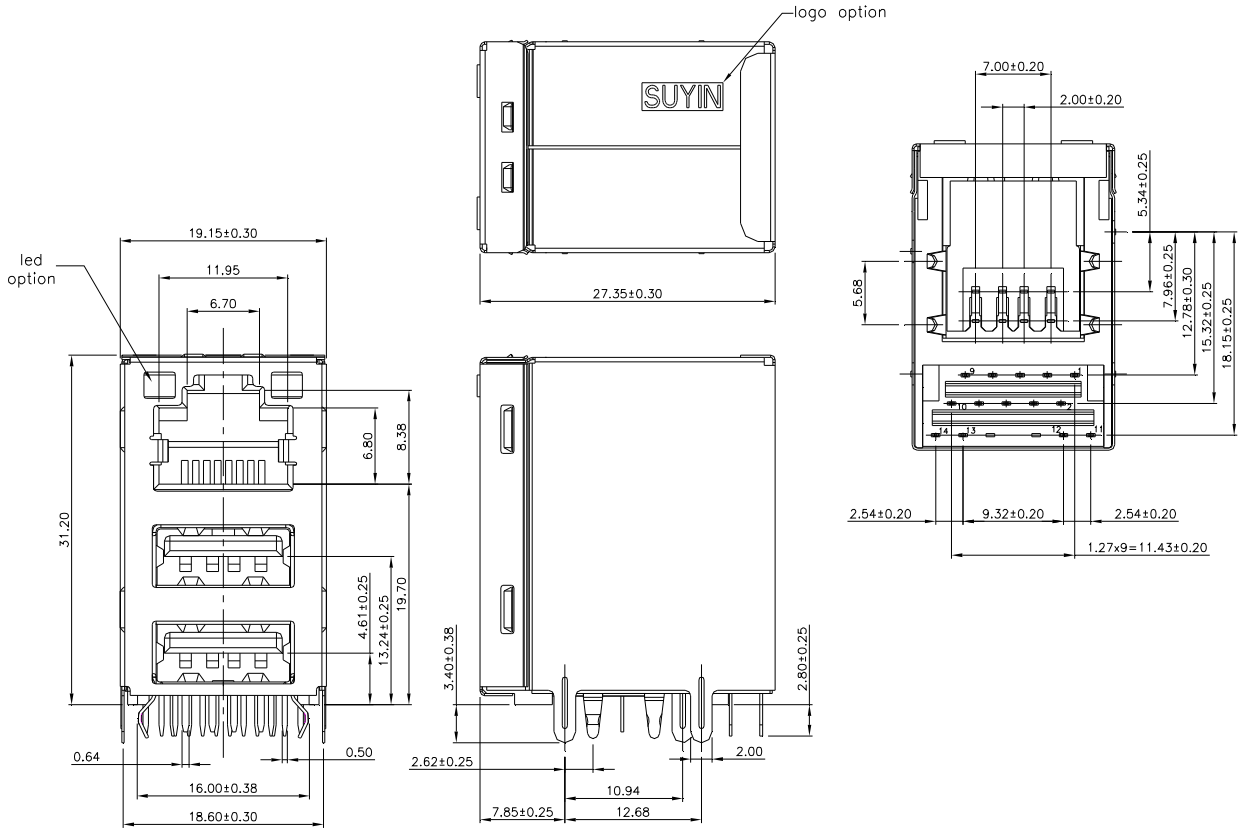
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2 MECHANICAL DIMENSIONS

2-1 Dimensions



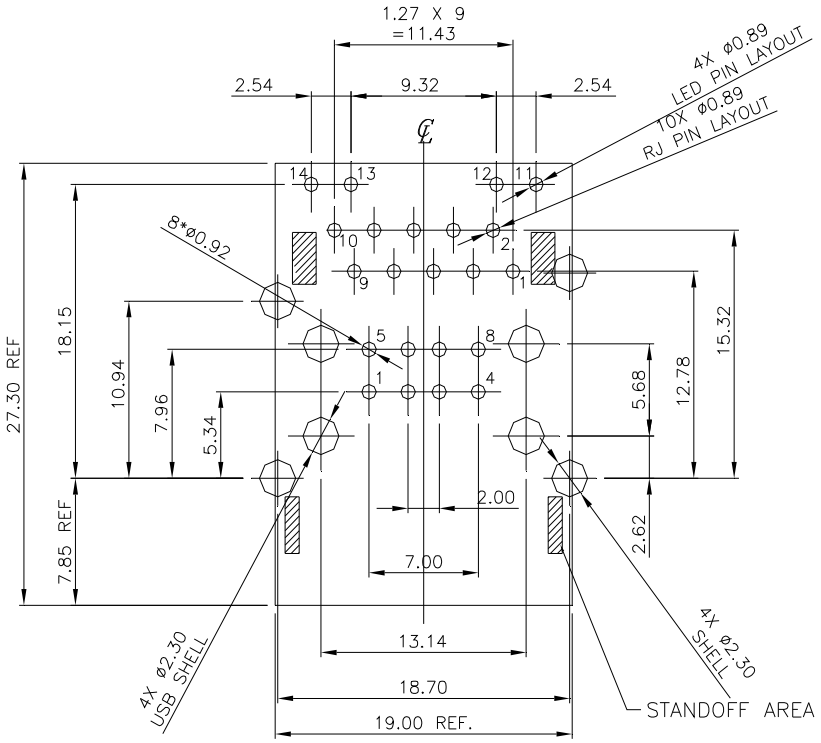
General Tolerance : 0~10mm: ±0.10
10~30mm: ±0.20
30~ mm : ±0.30

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2-2 PCB Layout



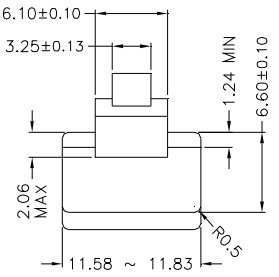
RECOMMENDED PCB LAYOUT
COMPONENT SIDE PCB THICKNESS : 1.60mm
ALL DIMENSION TOLERANCE ARE ±0.05 UNLESS OTHERWISE SPECIFIED

SUYIN CORPORATION

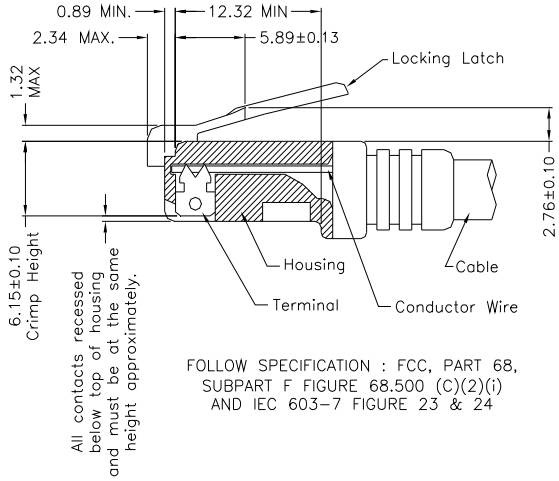
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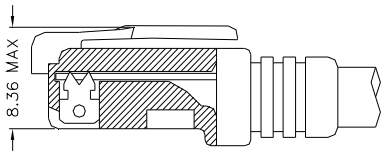
3 RECOMMEND RJ PLUG SPECIFICATION



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

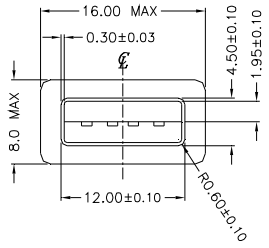


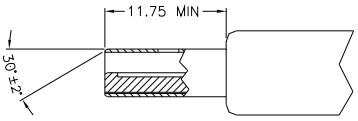
FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(i) AND IEC 603-7 FIGURE 23 & 24

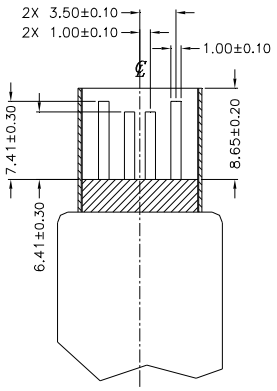


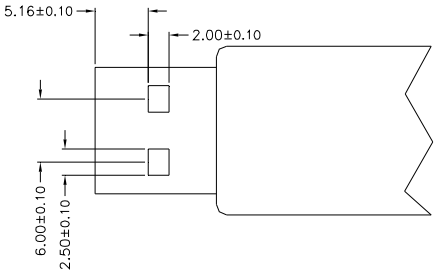
FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(ii)

4 RECOMMEND USB PLUG SPECIFICATION









FOLLOW SPECIFICATION :
Universal Series Bus
Figure 6-9. USB Series A Plug
Interface Drawing

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5 MATERIAL SPECIFICATION

5-1 RoHS Compliance per EU Directive 2002/95/EC

5-2 Plastic Housings:

A. RJ Housing: PBT, UL 94V-0, Black
B. USB Housing: PBT, UL94V-0, Black
C. Spacer: PBT, UL94V-0, Black
D. Transformer Housing: Phenolic, UL94V-0, Black

5-3 Terminals:

A. RJ Contacts: Phosphor Bronze
B. RJ Solder Pins: Brass
C. LED Solder Pins: Brass
D. USB Contacts & Solder Pins: Phosphor Bronze

5-4 Shields:

A. Front and Back Shield: Stainless Steel
B. USB Shield: Brass

5-5 Plating:

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

5-6 PCB: FR-4, Two Layer PCB

5-7 Internal Solder Joints: Sn/ Ag/ Cu (96.5/ 3/ 0.5)

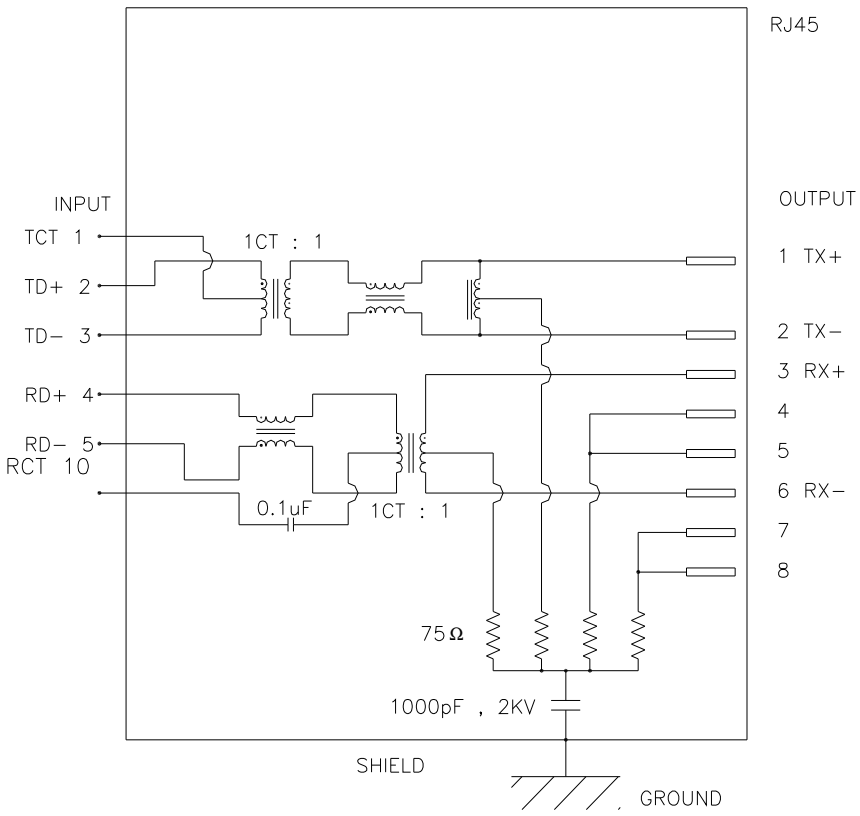
SUYIN CORPORATION

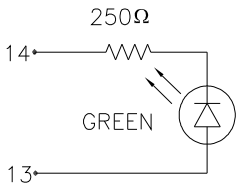
SPECIFICATION

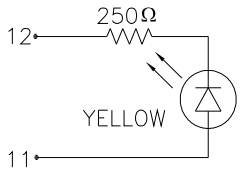
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6 ELECTRICAL CHARACTERISTICS

6-1 Schematic







6-2 Transmitter & Receiver Filter:

Insertion Loss (dB MAX)	Return Loss at 100Ω (dB MIN)		
1~100MHz	1~30MHz	30~60MHz	60~80MHz
-1.0	-18	-16	-12

6-3 Common Mode Rejection @ 1~100 MHz: -30dB MIN

6-4 Cross Talk @ 1~100 MHz: -35dB MIN

6-5 Inductance @ 100KHz/ 0.1V, 8mA DC BIAS: 350μH MIN

6-6 HiPot Test: 1500Vrms, 60sec

6-7 LED:

Forward Voltage (V) @ 20mA	
Typical	MAX
2.2	2.6

7 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

7-1 Operating Temperature Range: 0℃ TO +70℃

7-2 Storage Temperature: -40℃ to 85℃

7-3 USB module complies with USB 2.0 standards

7-4 USB Ratings

1. Insulation Resistance: 1000 M Ohm(MIN)
2. Contact Resistance : 25 m Ohm(MAX)
2. Dielectric Withstanding Voltage: 750 VAC

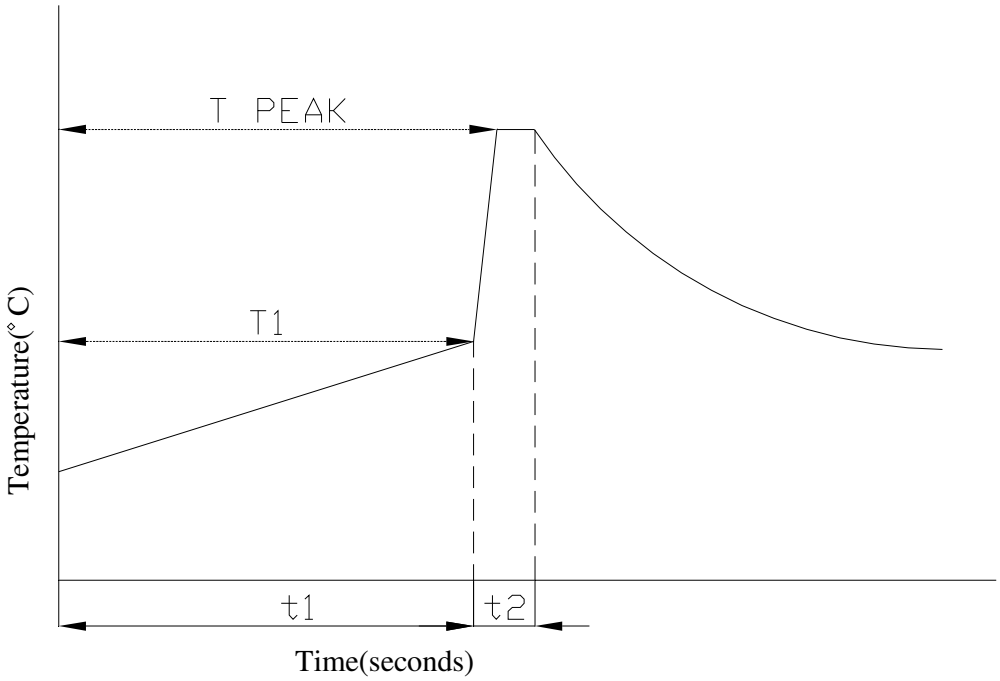
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8 STORAGE REQUIRMENTS

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

9 RECOMMEND WAVE SOLDERING PROFILE



PARAMETER	REFERENCE	LEAD FREE SPECIFICATION
PREHEAT TEMPERATURE GRADIENT		+1~4℃/sec
PREHEAT TIME	t1	2~3 MIN
PREHEAT TEMPERATURE	T1	>100℃
SOLDER POT TEMPERATURE	T PEAK	260℃±5℃
DWELL TIME	t2	3.5 SEC
PEAK BOARD TOP TEMPERATURE		190℃
COOLING TEMPERATURE GRADIENT		-6℃/SEC MAX.