



TITAN COMPUTER CO.,LTD.

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APPROVAL SHEET

Model : TTC-K8CTB/SC

Customer :

Date : 2004/5/4

CUSTOMER APPROVAL SIGNATURE

PRODUCT SPECIFICATION

A. GENERAL SPECIFICATION

ITEM		SPECIFICATION/CONDITION		
A-1	Part No.	TFD-7025HH12C+SCB-B		
A-2	Outline Dimension	70*70*25MM		
A-3	Rated Voltage	12VDC		
		Min	Standard	Max
A-4	Rated Current	0.1A	0.16A	0.24A
A-5	Power Consumption	1.2W	1.92W	2.88W
A-6	Rated Speed	1800±10%	2800±10%	4200±10%
A-7	Max. Airflow	18.03CFM	28.05CFM	42.08CFM
A-8	Max Static Pressure	0.84mmH ₂ O	2.02mmH ₂ O	4.55mmH ₂ O
A-9	Noise Level	<20dBA	<24dBA	<36dBA
A-10	No. of Pole	4 Pole		
A-11	Rotation Direction	Counter-Clockwise		

B. ELECTRICAL SPECIFICATION

ITEM		SPECIFICATION/CONDITION
B-1	Locked Motor Protection	a. No damage is made for a condition 72-hour rotation lock voltage b. Signal alarm-option
B-2	Polarity Protection	Circuit is protected when Vcc & GND are Exchanged
B-3	Insulation Resistance	10MΩ/b/w unshielded wire and frame at 500 VDC/min
B-4	Dielectric Strength	5Ma Max./Measured b/w lead wire and frame at 500VAC/min

C.MAIN MATERIAL/PARTS SPECIFICATION

ITEM	MAJOR COMPONENTS	MATERIAL OR TYPE	GRADE
C-1	FAN FRAME	PC	94V-0
C-2	FAN BLADE		94V-0
C-3	PLASTIC MAGNET	STRONTIUM FERRITE (BOB14W)	
C-4	LEAD WIRES	POLYVINYL CHLORIDE ENAMELED COPPER WIRE(AWG#24)	94V-0
C-5	CONNECTOR HOUSING		94V-0
C-6	CONNECTOR		

D.ENVIRONMENTAL SPECIFICATION

ITEM	SPECIFICATION/CONDITION
D-1	Operation Temperature -10°C~+60°C/66%(RH)
D-2	Storage Temperature -40°C~+70°C/66%(RH)
D-3	Environment Humidity 10%(RH)45°C for 24hrg
D-4	Packing Shock Proof Test 1 comer, 3 edges ,6 face natural drop 80cm high packing
D-5	Temperature Rise In Normal Operation Temperature rise less than 35°C at external surface Temperature rise less than 65°C at coil surface
D-6	Insulation Resistance Between fan frame and terminal wires at least 10MΩ at 500VDC
D-7	Dielectric Strength Must withstand 500 VAC 1second 1m A between fan frame and both wires

E.LIFE TIME

BEARING TYPE	AMBIENT TEMP	EXPECTANCY
<input type="checkbox"/> SLEEVE BEARING	25°C	25,000HOURS
<input checked="" type="checkbox"/> 1B/1S BEARING	25°C	35,000HOURS
<input type="checkbox"/> TWO BALL BEARING	25°C	50,000HOURS

F.SHOCK TEST

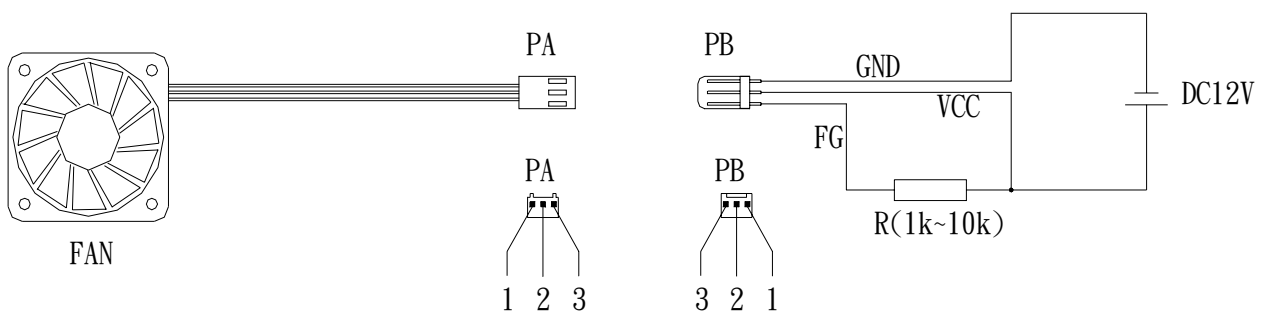
Gravitational acceleration of 50gpeak,duration of pulse,11mili seconds(half sine wave).

G.DROP TEST

Prepared in minimum packing condition,fan will withstand one drop each on three surfaces from a 30cm height onto a 10mm thick hard wooden board.

H.FG(WAVE) TEST

1 FG(WAVE) Test circuit figure:

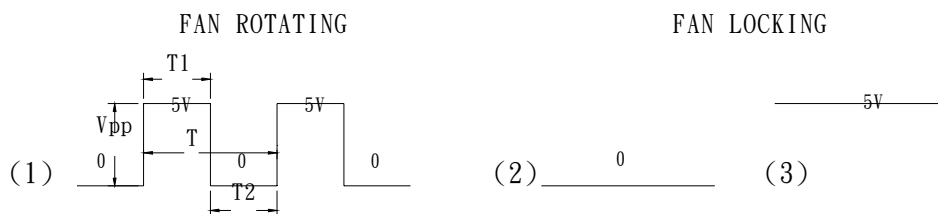


2.Pin assignments:

PA	PB
PIN1 BLACK	PIN1 GND
PIN2 RED	PIN2 VCC
PIN3 YELLOW	PIN3 FG

3.FG(WAVE) Level & Time :

a. FG WAVE:(As fan in computer user)



(1) At fan rotor rotating output signal

(2) or (3) At fan rotor locking output signal

b.TIME: $T1/T \cong T2/T \cong 1/2$

c.FG LEVEL $V_{pp}=5V$

Figure 1 FAN Assembly

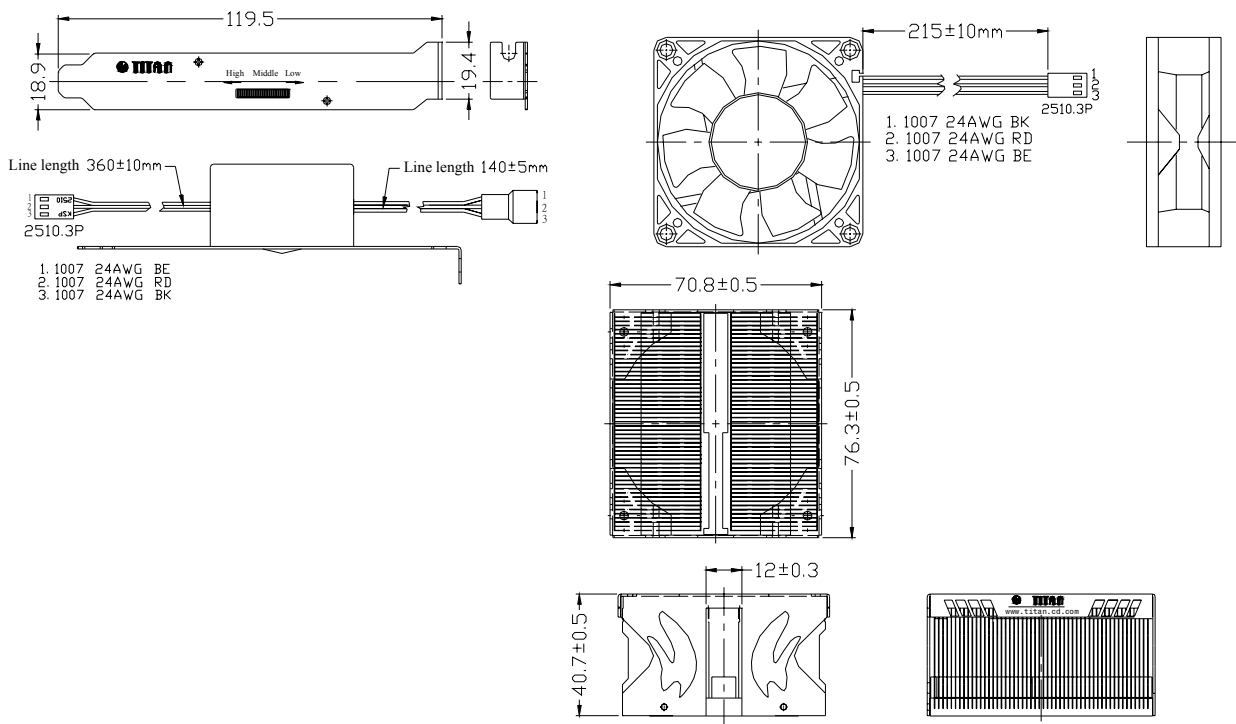
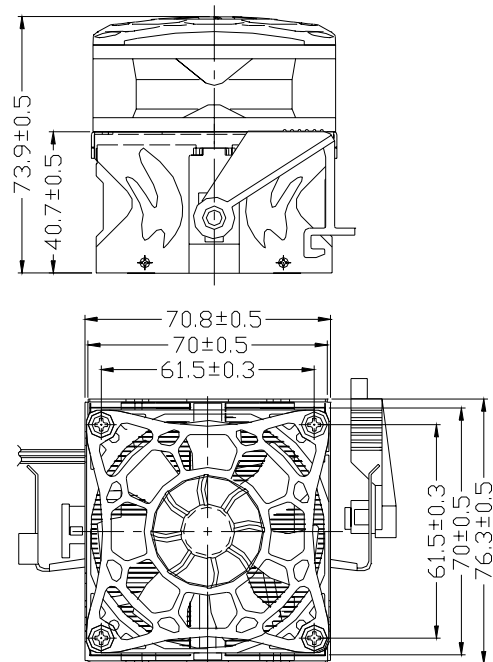


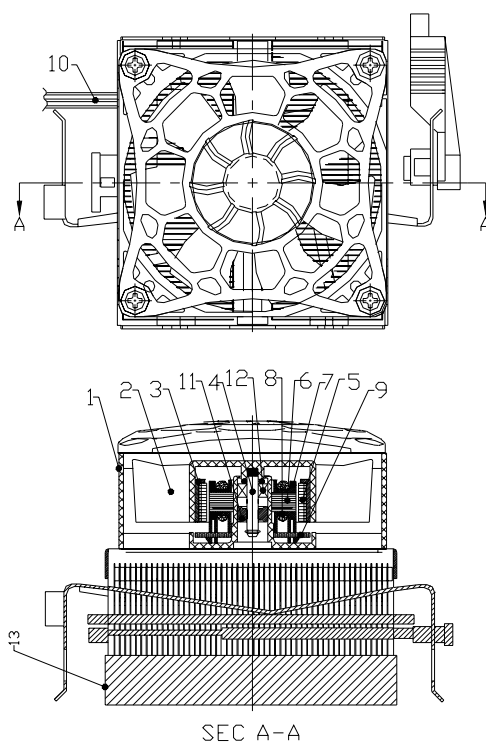
Figure 2 Mechanical Dimensions



Notes:

1. Tolerances: ±0.5
2. Impeller must not protrude beyond front surface
3. Minimum 0.50 radius at all rib intersections
4. Unit: mm

Figure 3 Bill of Material



No	Components	Material	Flame Class	Grade	Manufacturer	UL File No
1	Case	PC	94-V0	---	Zhong gang industria-limited	E205196
2	Fan Blade	PC	94-V0	---	Zhong gang industria-limited	E205196
3	Yoke	Steel	---	---	Kuo chen metal ind co.,ltk	---
4	Shaft	Stainless Steel	---	---	Teng Mao precision on shaft factory.	---
5	Magnet	Rubber	94-V0	---	Best result enter-prise co.,ltd	---
6	Core	Plated Steel Sheets	---	---	Chang yi industry co.,ltd	---
7	Slot Insulation	PBT	94-V0	---	Zhong gang industria-limited	E205196
8	Winding	Polyurethane enameled copper	---	---	Li yan industry co.,ltd	---
9	Printed wiring board	Metal clad industrial lamination	94-V0	---	Dong jian electronics.,ltd	---
10	Lead wire	UL1007 AWG24	---	---	Wide cheer enter-prise limited	E108485
11	Sleeve bearing	Copper powdered	---	---	Zhuxiang co.,ltd	---
12	Ball bearing	Carbon Steel	---	---	Nmb isc,tpi	---
13	Heatsink	Copper powdered	---	---	Gaobao co.,ltd	---

Figure 4 Fan Performance Curve

