

FAN CONTROLLER

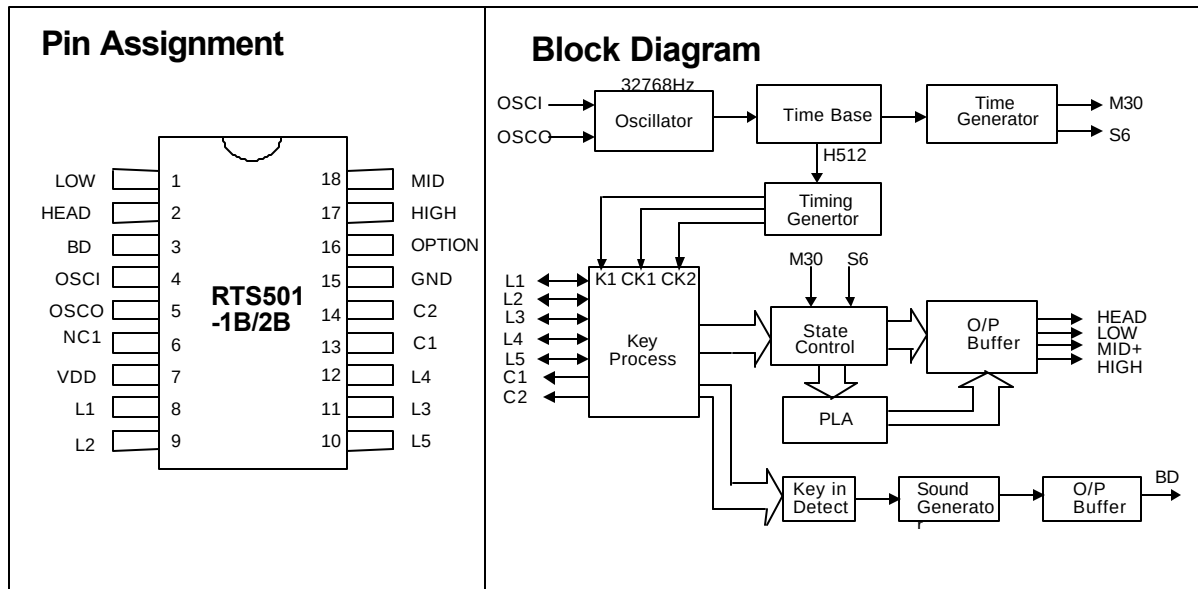
Features

- Three wind modes can be selected:
 - Constant-Speed-Wind
 - Rhythmical Wind
 - Sleep-Wind
- 3.5V to 4.3V power supply
- Low power consumption
- Three wind grades for each wind mode:
 - Soft, Medium, and Strong wind
- Two timing functions
 - Summable
 - Non-summable

General Description

The RTS501-1B/2B is a CMOS LSI designed for fan controllers. In rhythmical wind mode, the wind speed is programmable; for example, it has programming options, to be soft -- medium - - strong -- soft etc.. In sleep wind mode, the wind speed automatically decreases to help fall asleep. If any key is held for over 6 seconds, the RTS501-1B/2B will automatically power Off. If any two keys are simultaneously pushed, neither of the corresponding functions will be activated.

Function Type \	Option Pin	Summable/ Non-summable	Timer	The Longest Time
RTS501-1B	Floating	Non-summable	0.5→1→2→4hrs	4hrs
	GND	Summable	0.5→1→2→4hrs	7.5hrs
RTS501-2B	Floating	Non-summable	1→2→4→8hrs	8hrs
	GND	Summable	1→2→4→8hrs	15hrs



Absolute Maximun Ratings

DC Supply Voltage.....3.5V to 5.0V
Input/Output Voltage.....GND -0.2V to VDD + 0.2V
Operating temperature.....-10 C to 60 C
Storage Temperature.....-25 C to 125 C

Comments*

Never allow a stress to exceed the values listed under "Absolute Maximun Ratings", otherwise the device would suffer from a permanent damage. Nor is a stress at the listed values allowed to persist over a period, since an extended exposure to the absolute maximum rating condition may also affect the reliability of the device, if not causing a damage thereof.

Electrical Characteristics

(VDD=4.3V, GND=0V, T_A=25 C, unless otherwise specified.)

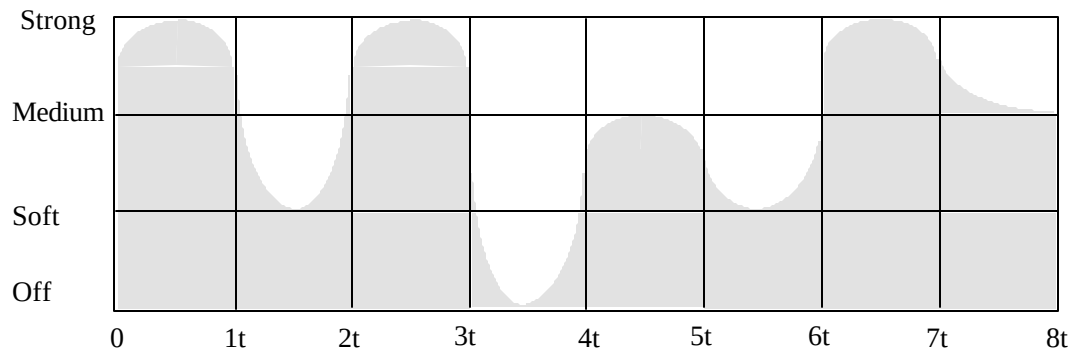
Parameter	Symbol	Min.	Typ.	Max.
Operating Voltage	VDD	3.5V	4V	4.3V
Current on TRIAC Drive Pin	I _{TRIAC}	25mA	-	-
Current on LED Drive Pin	I _{driving}	15mA	-	-
Current on C1, C2 pin	I _{sinking}	60mA	-	-
Current on BD pin	I _{driving & sinking}	5mA	-	-

Pin Description

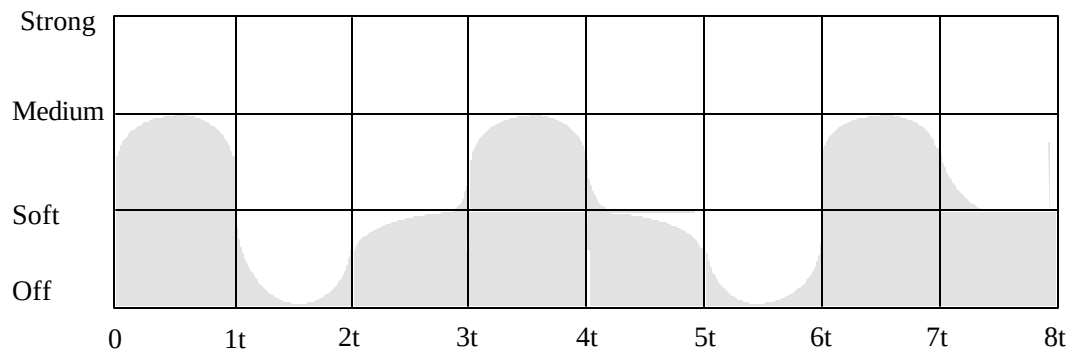
Pin No.	Designation	Description
1	LOW	Low speed control pin for fan coil
2	HEAD	Heater or Fan head control pin
3	BD	Piezo output pin
4	OSCI	Oscillator input pin
5	OSCO	Oscillator output pin
6	NC1	For support testing
7	VDD	Positive power supply pin
8	L1	Wind speed active and LED drive pin
9	L2	Heater or Fan head active and LED drive pin
10	L5	Chip disable and LED drive pin
11	L3	Time setting and LED drive pin
12	L4	Wind mode active and LED drive pin
13	C1	Clock 1 pin (L1--L5 I/P or MUX)
14	C2	Clock 2 pin (L1--L5 I/P or MUX)
15	GND	Negative power supply pin
16	OPTION	Timing function selection pin Summable mode, if connected to GND. Non-summable mode, if floating.
17	HIGH	High speed control pin for fan coil
18	MID	Medium speed control pin for fan coil

Rhythmical Wind mode programmed with speed (t=6 sec)

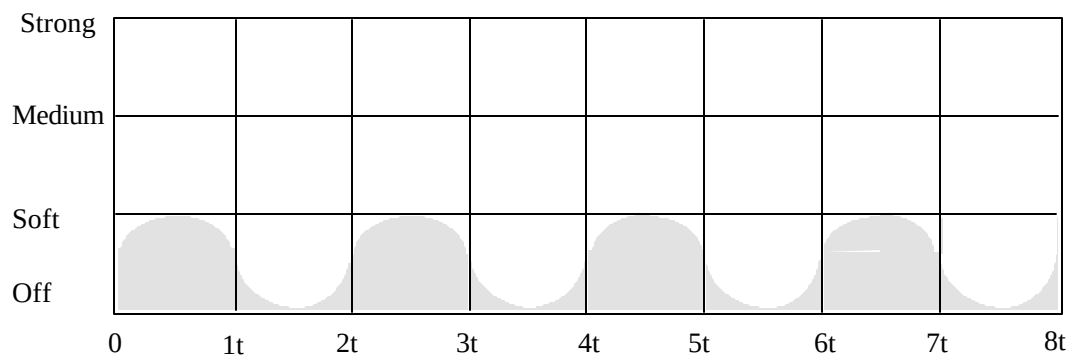
Strong-Rhythmical Wind



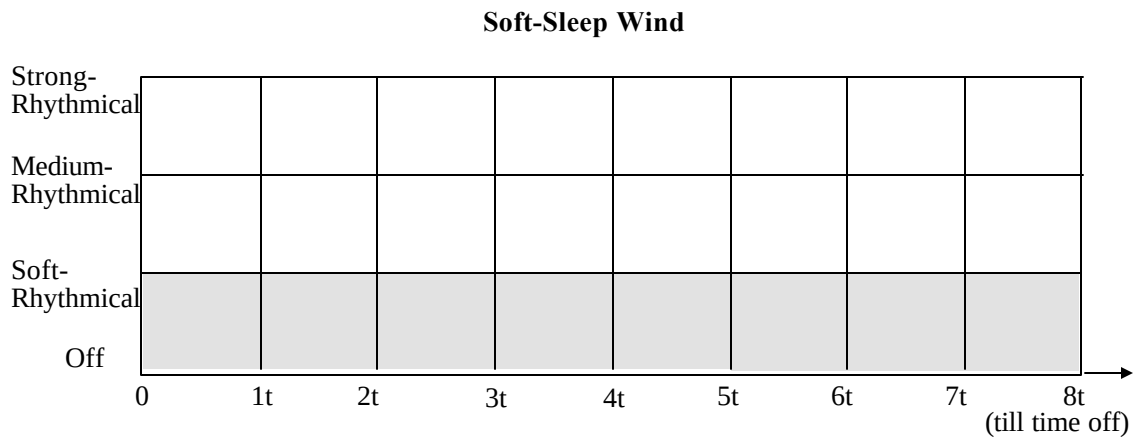
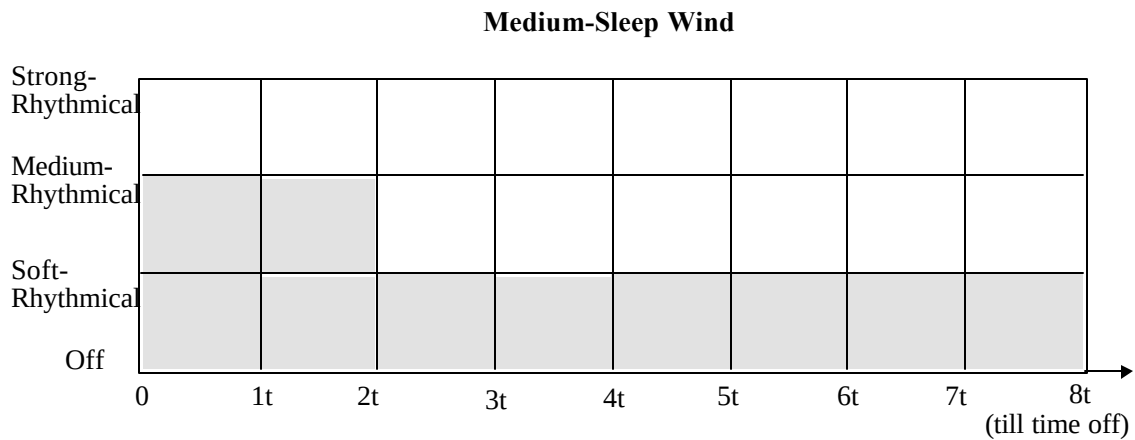
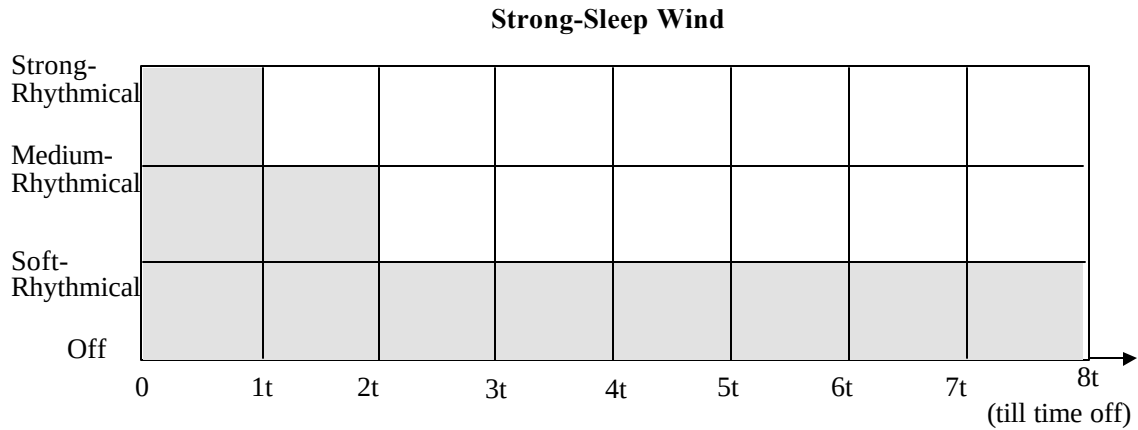
Medium-Rhythmical Wind



Soft-Rhythmical Wind

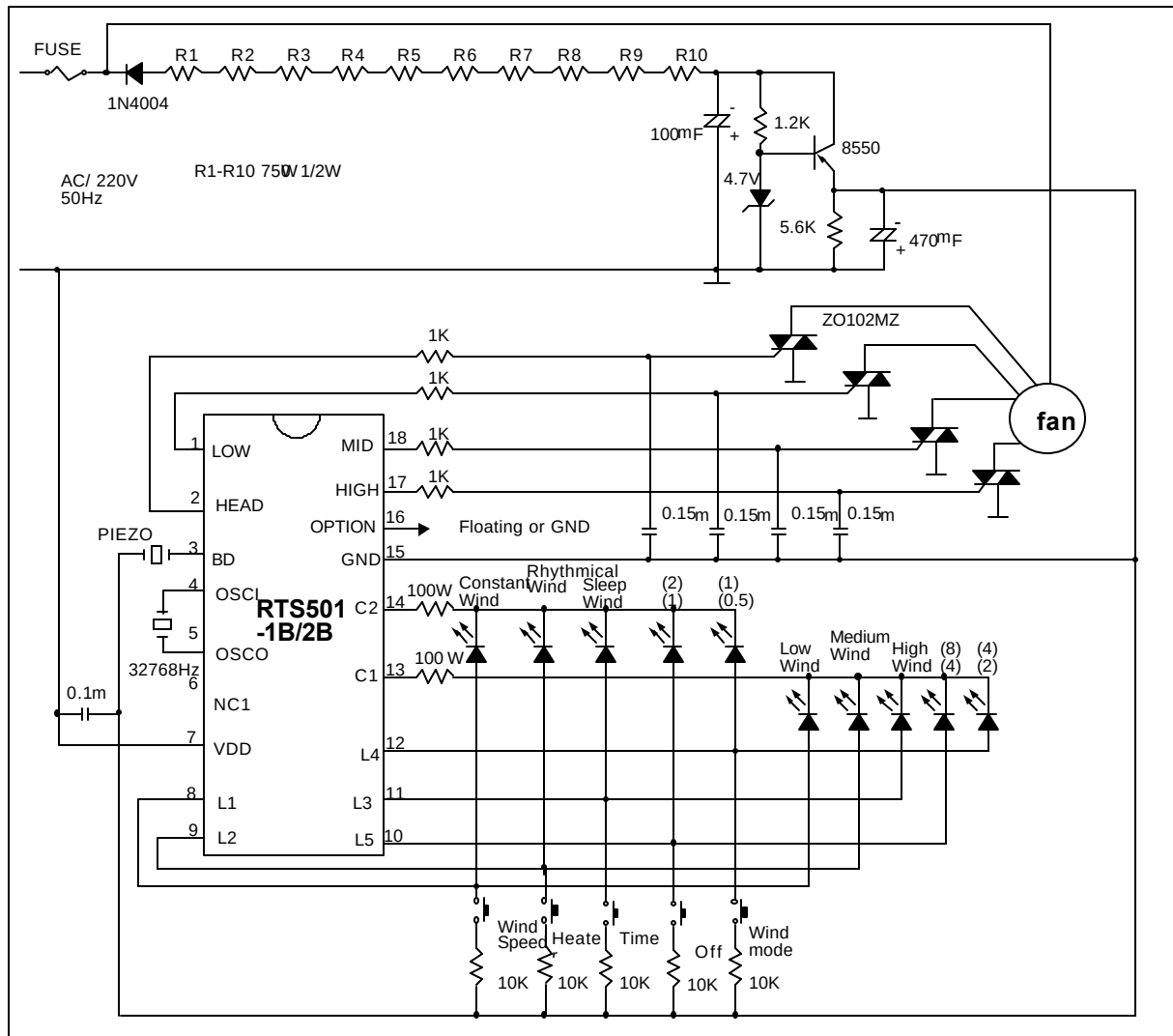


Sleep Mode Wind (T = 0.5hr)

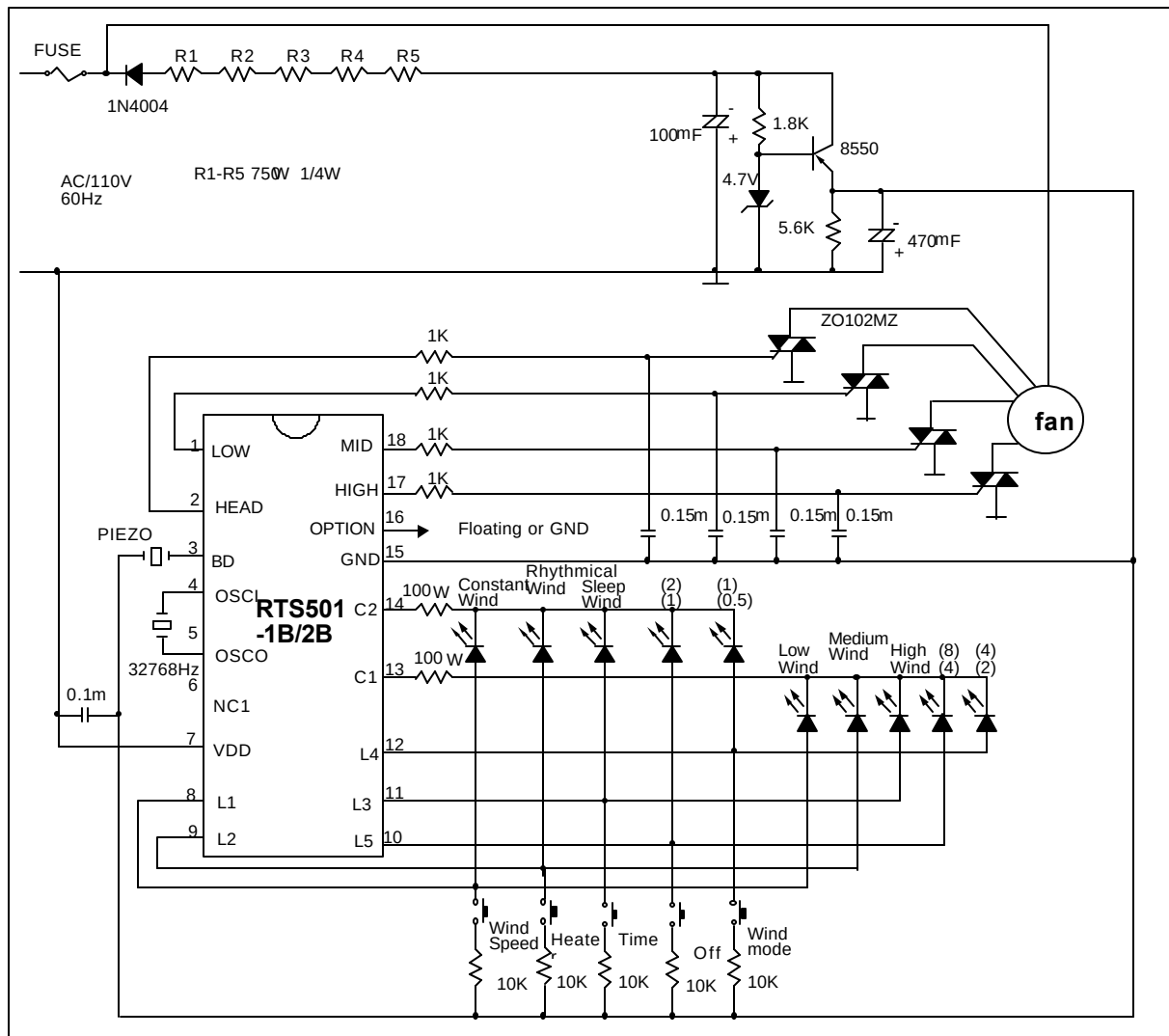


Application Circuit

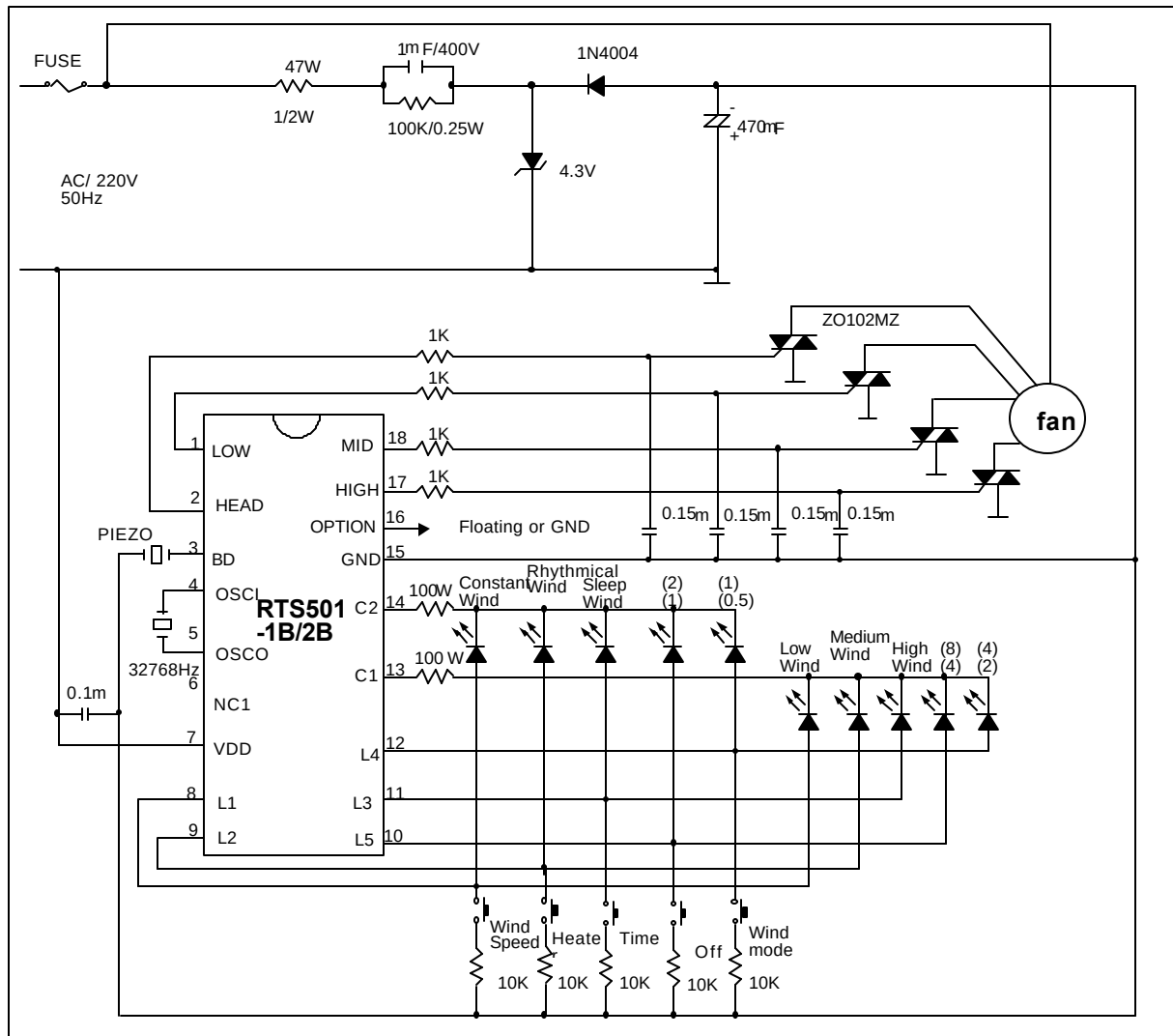
1. 220V/50Hz resistance power supply



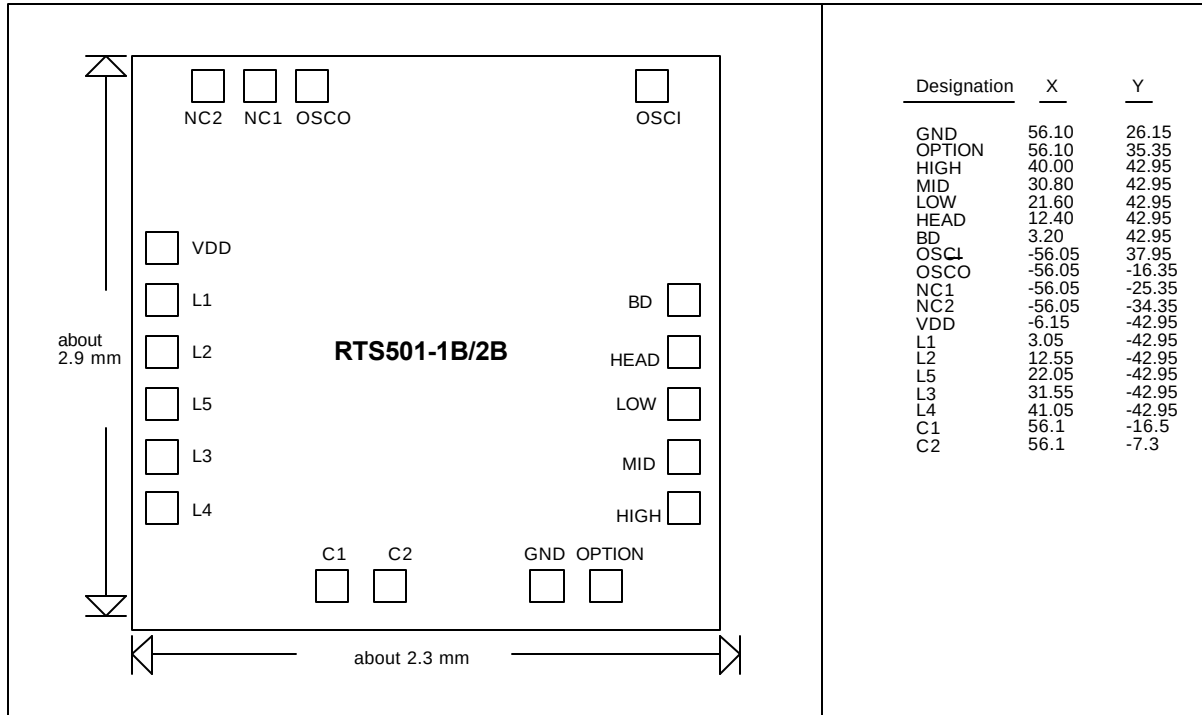
2. 110V/60Hz resistance power supply



3. 220V/50Hz capacitance power supply



Bonding Diagram



M-Square Technologies Corporation

A Subsidiary of Realtek Group

HEAD QUARTER

Floor 4, No. 2, Industry E. RD. IX, Science-Based
Industrial Park, Hsinchu, 300 Taiwan, R.O.C.
Tel: 886-3-6661028 Fax: 886-3-6661928

HONGKONG OFFICE

Room 1403, Charm Centre 700 Castle Peak
Rd., Lai Chi Kok Kowloon, Hong Kong
Tel: 852-29593235
Fax: 852-27425267

SHENZHEN OFFICE

Room 1508, Block A, Union Square, No.-
5022 Caitian Rd., Futian, Shenzhen
Tel: 6-755-2900672
Fax: 86-755-2900681