

UTE^C®

United Thermal Engineering Corporation

AC/DC Cooling Fans



DC Axial Fans



DC Blower Fans



AC Axial Fans

www.utecusa.com

Tel. 650.428.1188 E-Mail: info@utecusa.com

Products

UTECH offers quality fans to meet customers' air moving needs

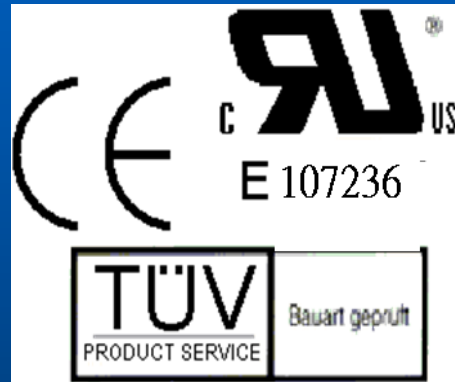
DC Axial fans frame size from *25~120mm*, thickness from *7~38mm* with variety voltage design *3.3V, 5V, 12V, 24V, 48V, 60V*, and AC/DC

DC Blowers various design and voltage range *3.3V, 5V, 12V, 24V*, and *48V* for different applications

AC Fans *110V, 220V, 115/230 bi-voltage*



All Fans and Blowers have met the worldwide standards in their design of forced air cooling devices.



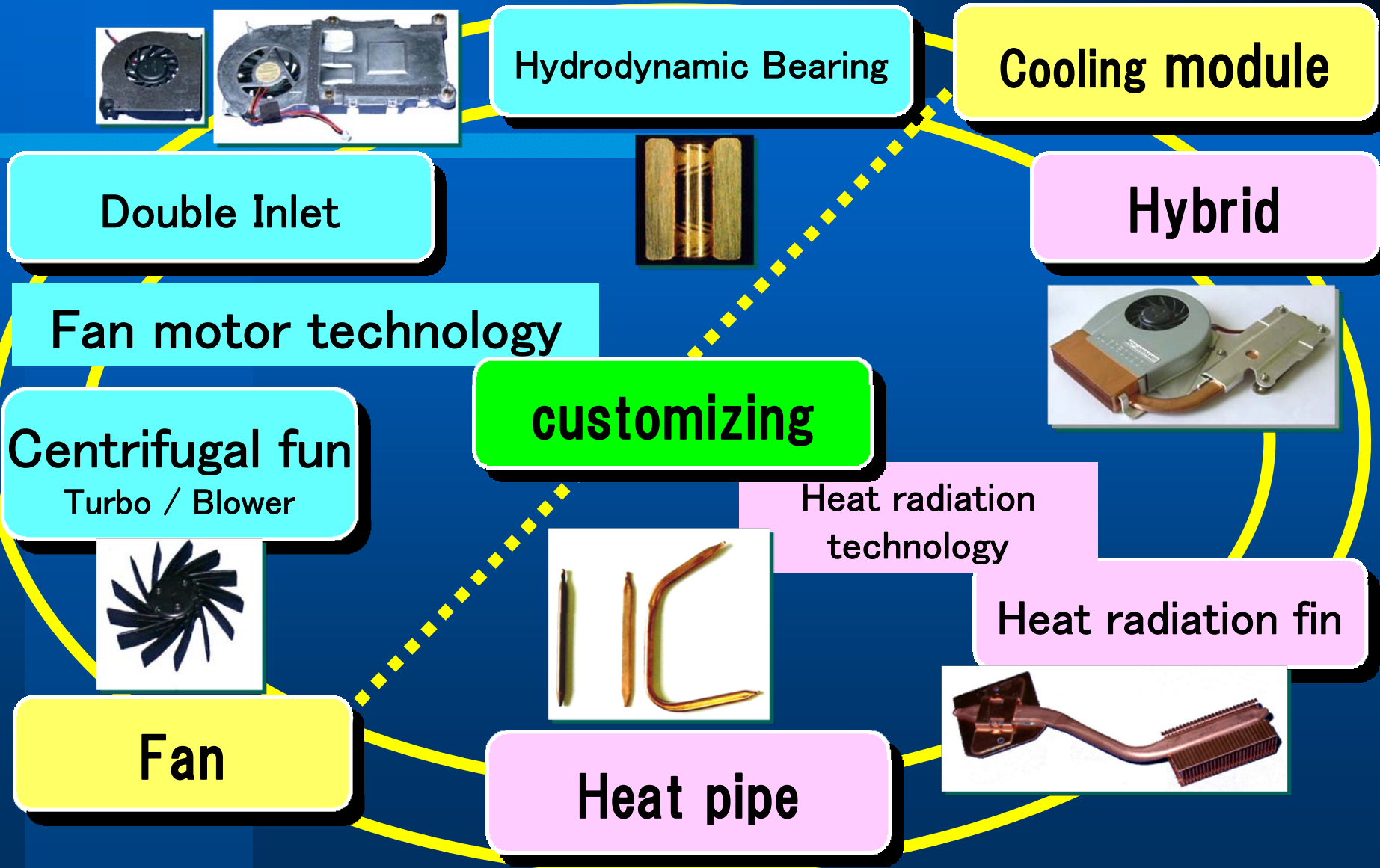
All of our products are approval by UL, CUL, CE, TÜV as well as in compliance with RoHS requirement.



Injection & Molding



Key Technology



Cooling Module



Cooling Module(MCF) is a key component for MPU cooling inside of a laptop computer.

Our MCF corresponds to high heat generation of MPU and thinner type of a laptop computer.



Control technology (PWM control) 1



Car navigation

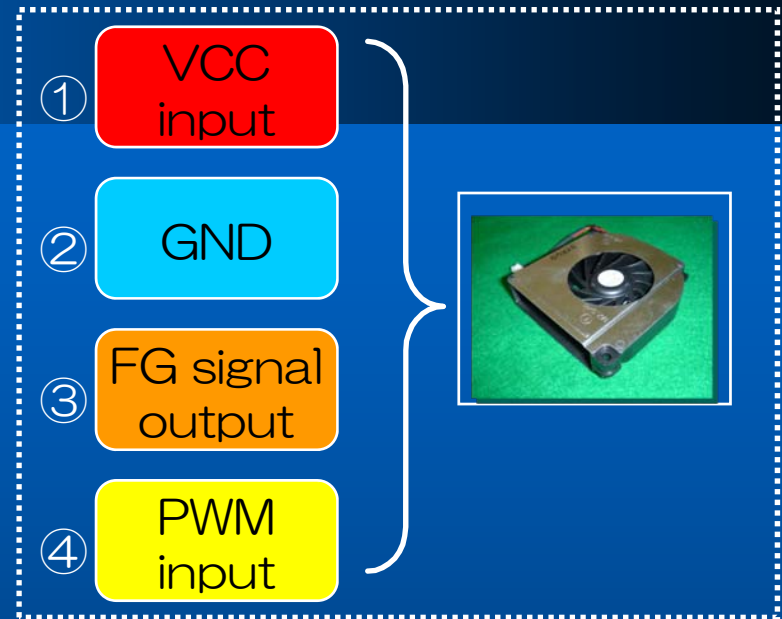
3~6V DC



2pulse/r



pulse



Fan motor

- ① Fan rotational speed is feed back by FG and monitored.
- ② As for fan rotational speed, the rotational speed is controlled from the system side by the PWM signal.
- ③ Fan rotational speed control is also possible by the control of VCC.
- ④ The range where fan rotational speed can be controlled for a voltage changeable method extends.

Sensitive speed control possible by monitoring the FG signal.

Control technology (PWM control) 2

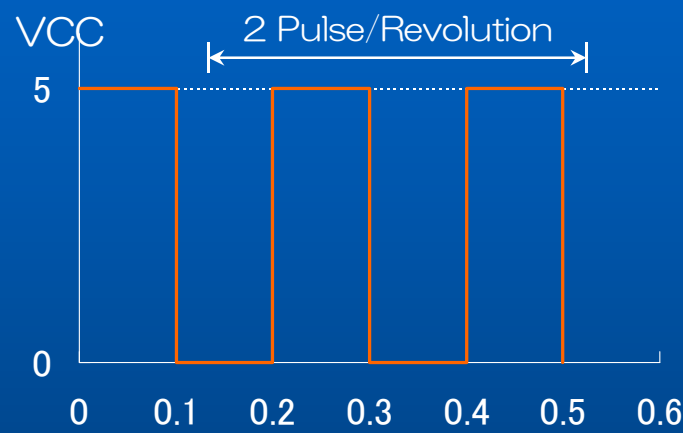
① **VCC input** 3~6V DC

- ① 3~6V DC is input.
- ② The maximum current consumption 400mA

Speed control

② **FG signal output** 2pulse/rotation

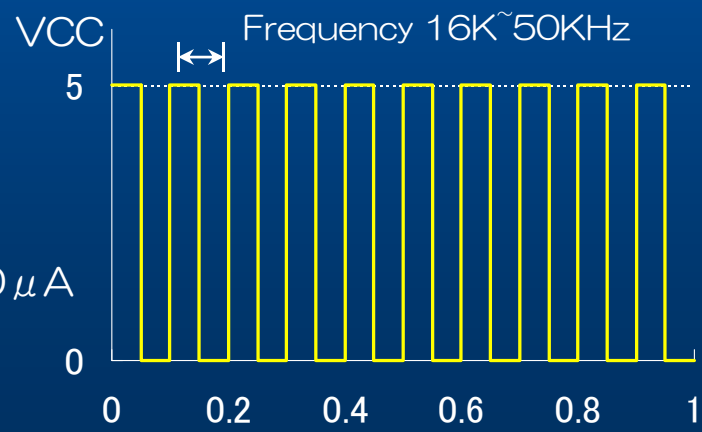
- ① Signal is 2pulse/rotation
- ② The maximum output current 5mA.



Speed feedback

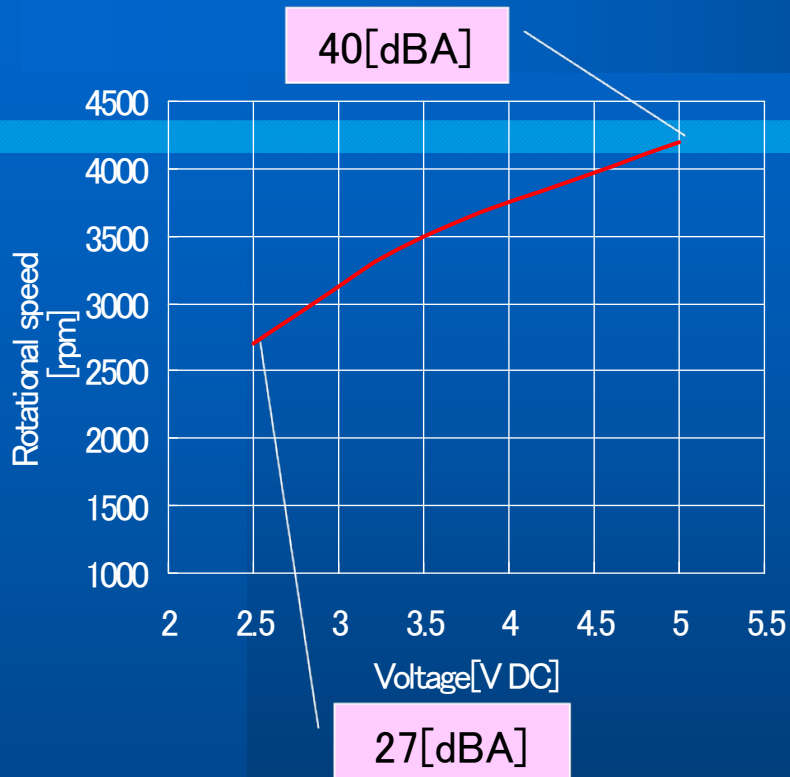
④ **PWM input** Pulse signal

- ① Frequency 16k~50kHz
- ② The maximum input current 10μA

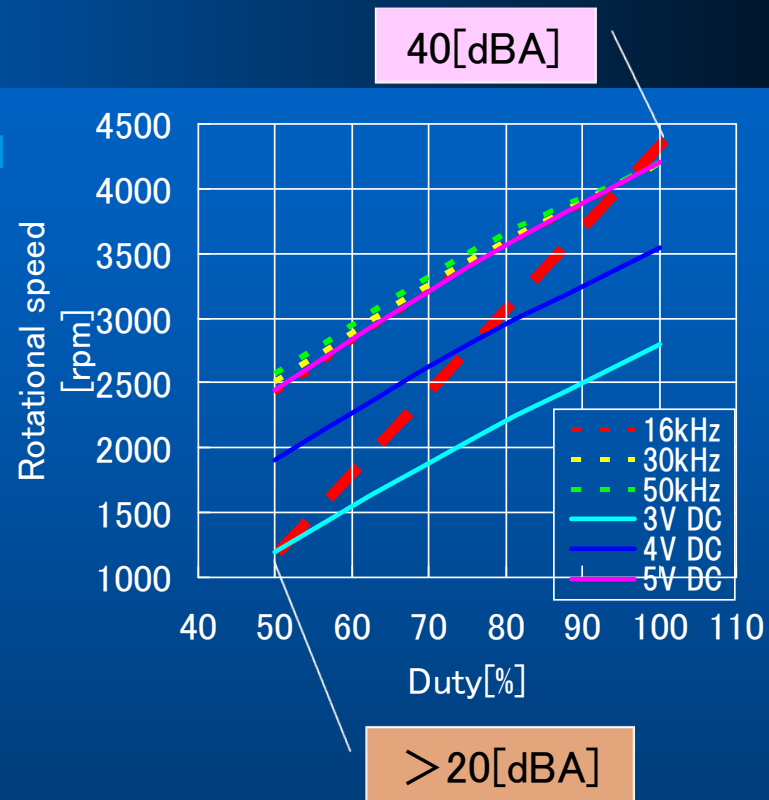


Speed control

Control technology (PWM control) 3



Voltage VS Rotational speed
(only voltage control)



Load VS Speed (PWM control)

The range of the speed control of noise level 27 ~ 40 dBA can be adjusted to 20 dBA in the minimum by the PWM control. The range of the control twice so far is achieved.