Meet your demand for optimal miniature cooling design
Expert on forced air convection and heat dissipation in miniature mechanisms

Sunon was founded in 1980 and is a leader in precision motors and miniature cooling fans. In 2007, the company successfully launched its Mighty Mini cooling technology and mass-produced 3cm below miniature cooling products. It offered the smallest (8mm), the thinnest (3mm) and the lowest energy-consuming innovative design. The mature technology has passed rigorous reliability verification and been introduced into new-generation products of computer information, network communications, consumer electronics, medical equipment, security surveillance, etc.

Sunon has taken out 110 patents from around the globe for the Mighty Mini cooling technology. Accompanied by our flexible custom-made design ability, we have successfully assisted clients across the world with solving their cooling problems in various miniature mechanisms and become the best cooling design advisor for clients developing new-generation miniature electronic products.

Innovative Solution

UMPC & MID	Pico Projector
Medical Air Detector	Samrt Phone

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Fan Size: ● 80mm

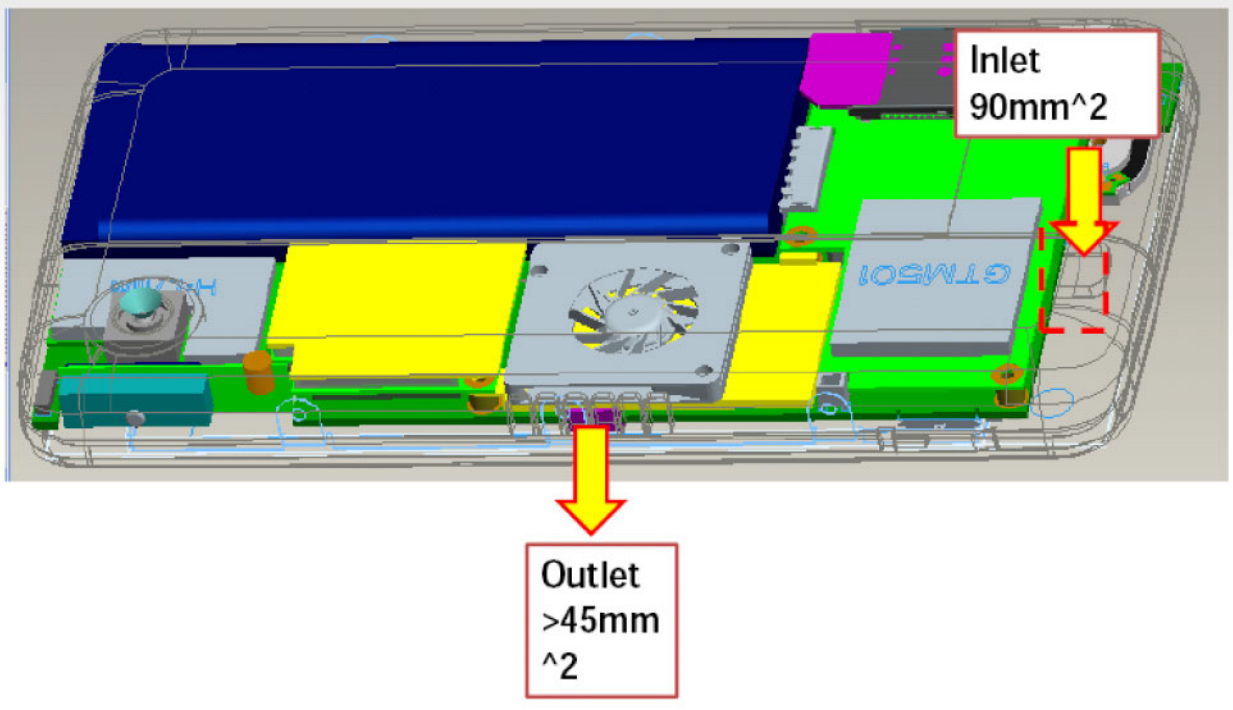
● 30mm

● 8mm

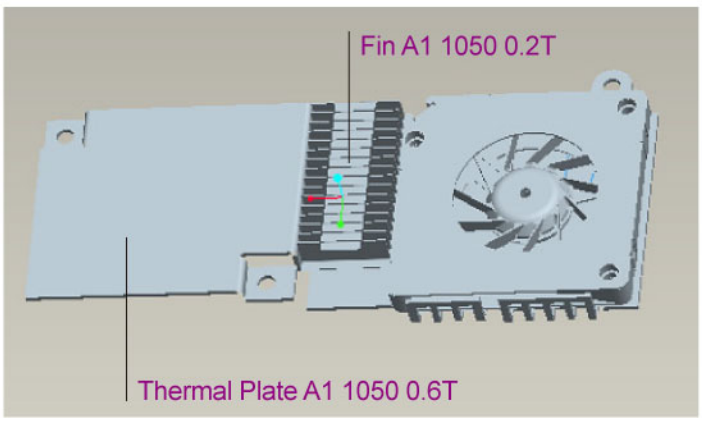
	Size	Model	Operating Voltage(V)	Voltage (V)	Power Current (mA)	Power Consumption (Watts)	Speed (RPM)	Air Flow (l/min)	Static Pressure (Pa)	Noise(dBA)	Weight (g)
Fan Series	8x8x3mm	UF383-100	2.1-3.5	3	93	0.3	13500	0.2	1.56	2.1dBA/0.2M	0.3
	8x8x5mm	UF385-100	2.0-3.5	3	49	0.1	17000	0.6	2	17.1dBA/0.3M	0.44
	10x10x5mm	UF3A5-100	2.7-3.5	3	51	0.2	14600	1.3	3.93	1.4dBA/1M	0.68
	12x12x5mm	UF3C5-100	2.3-3.5	3	33	0.1	7200	1.6	2.63	1.9dBA/0.2M	0.88
	15x15x3mm	UF3F3-100	2.2-3.5	3	30	0.09	1000	5.8	13.7	16.8dBA/30cm	0.76
	15x15x5mm	UF3F5-100	2.3-3.5	3	28	0.1	7200	3.7	4.65	3.7dBA/0.3M	1.2
	17x17x3mm	UF3H3-100	2.55-3.5	3	42	0.1	6500	6.5	5.27	5.3dBA/1M	0.96
Blower Series	9x9x3mm	UB393-100	2-3.5	3	56	0.1	12000	0.91	7.76	12.7dBA/1M	0.47
	12x12x3mm	UB3C3-100	2.2-3.5	3	41	0.13	8400	1.6	10.59	14.2dBA/1M	0.54
	15x15x3mm	UB3F3-100	2.0-3.5	3	42	0.1	6800	2.6	14.45	16.0dBA/1M	0.7
	17x17x3mm	UB3H3-100	2.2-3.5	3	42	0.1	5600	3.0	12.9	21.2dBA/1M	0.78
	30x30x3mm	UB5U3-100	3.5-6	5	62	0.3	4300	7.5	19.54	16.8dBA/1M	0.36

*Please Visit SUNON web site at http://www.sunon.com for update information.

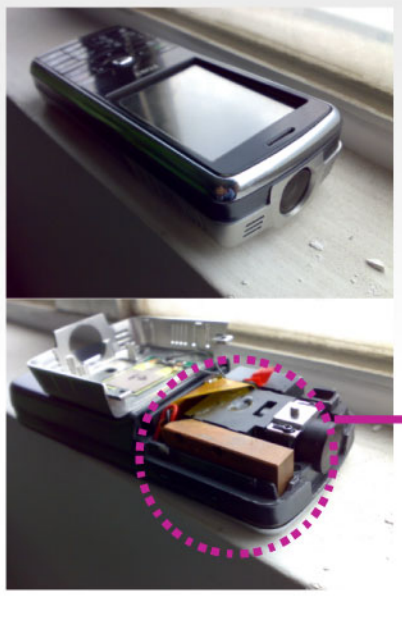
UMPC & MID

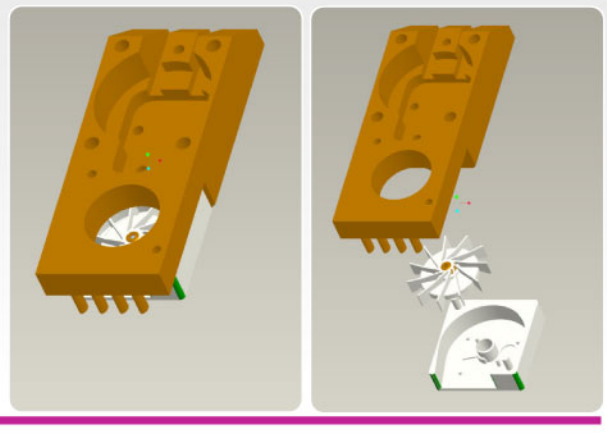


Application：UMPC
Dimension：15.7x7.5x1.5cm
CPU：0.25W
Chipset：1.1W
Cooling Solution：Cooling Module with Mighty Mini Blower (30x30x3mm).



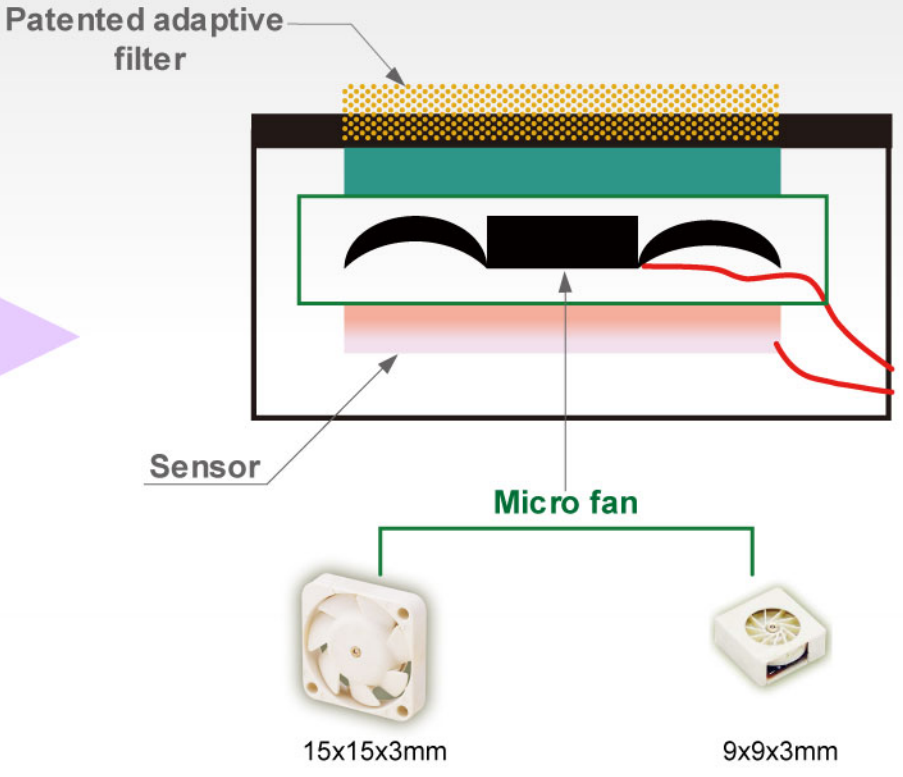
PICO Projector





Application：Pico Projector
Lumens：10 lm
Cooling Solution：Cooling Module with Mighty Mini Blower (12x12x3mm)

Medical Air Detector



Application：Medical Air Detector

Demands of Fan：Micro fan for ultra wearable device.
Need a fan to inhale the air.

Solution：Mighty Mini Blowers
(9x9x3mm and 15x15x3mm)

Smart Phone

Application：Smart Phone

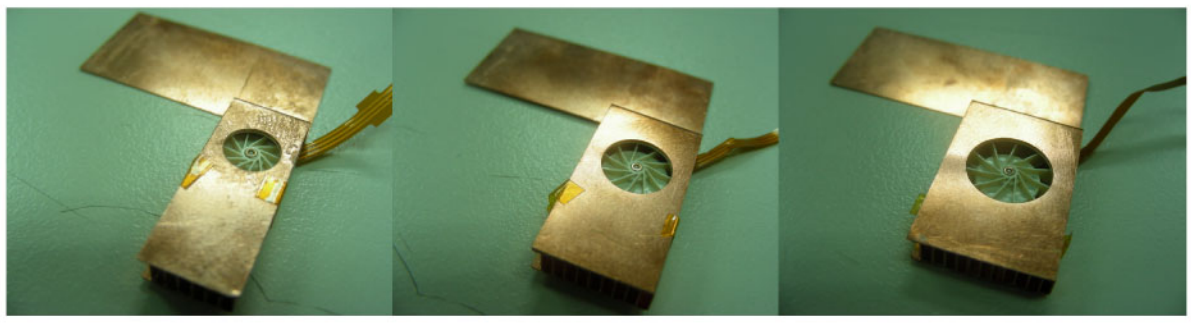
Product size：11.5 x 5.6 x 2cm

Power Consumption：2.5W

Cooling Solution：

Cooling Module with Mighty Mini Blower
(9x9x3mm, 12x12x3mm, and 15x15x3mm)

9×9×3mm+Module | 12×12×3mm+Module | 15×15×3mm+Module



We proceeded respectively airflow testing, temperature testing, vibration testing and noise testing. Below form is the result.

Testing condition	Voltage (V)	Current (A)	Power (W)	Q (CFM)	Ta (℃)	Tc (℃)	△Ta (℃)	SPL@0.25m (dBA)	SPL@0.25m R(dBA)	Vibration-back (m/s^2)	Vibration-sind (m/s^2)
none					27.24	128.0					
0903+module	3	0.03	0.09	0.03	27.19	101.9	26.1	22.9	21.3	0.426	0.217
1203+module	3	0.04	0.12	0.05	27.24	96.8	31.2	24.1	22.7	0.389	0.271
1503+module	3	0.04	0.12	0.10	27.45	93.5	34.5	24.6	23.0	0.510	0.236

- The temperature of Smart Phone with 3W power can be reduced 26°C to 35 °C by the thermal solution.
- Noise level of smart phone is under 25 dBA at the highest loading. (Background noise of ordinary office :40~50 dBA).
- Vibration on smart phone induced by mini-Fan is 0.5 m/s2. (Vibration of ordinary Mobile Phone:15 m/s2)
- The module with mini-Fan is the best solution for promoting the performance of Smart Phone. High thermal dissipation, Low noise and Low Vibration.