AUDIOWELL

PRODUCT CATALOGUE

Intelligent Terminal

AUDIOWELL
SENSOR TECHNOLOGY

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AUDIOWELL INTRODUCTION

Audiowell Electronics(Guangdong) Co., Ltd. (AUDIOWELL) was established in 1999, stock abbreviation: Audiowell, stock code: 832491. The company is a high-tech enterprise specializing in the research, design, production and sales of intelligent sensors and actuators and related applications.

Owning four manufacturing bases, Audiowell possesses the ability of of transducer chip preparation, structural design,intelligent algorithm, precision machining and packaging and testing technology and the main products are intelligent sensors and actuators. Products are widely used in intelligent vehicle, intelligent meters, smart homes, smart security, smart terminals and other fields. Audiowell committs to becoming the main provider of the core components of the perception layer and the execution layer and their solutions.

AUDIOWELL
SENSOR TECHNOLOGY

SENSOR TECHNOLOGY

INTELLIGENT TERMINAL

Piezo Haptic Actuator | Haptic Feedback Actuator | Matrix Ultrasonic Air Fan

Piezo Air Pump | MEMS Ultrasonic Sensor | Ceramic Tweeter Inside Earphone

Piezoelectric Speaker

INTELLIGENT TERMINAL

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Piezo Haptic Actuator

Features

- Achieve advanced seamless design
- Longer life time and better experience

Applications

- Display touch panel
- Intelligent switch

Model	HY0053-001	HY0099	HY0103	HY0104
Resonant frequency (KHz)	100K~1M Composite oscillator	/	/	/
Static capacitance (pF)	Electrode A: 460 Electrode B: 160	60	120	30
Electrode technology	Silver plated	Gold plated	Nickel plated	Gold plated
Dimensions (mm)	5.9×2.5×0.3	2.5×0.5×0.3	2.5×1×0.3	105×0.5×0.3

Haptic Feedback Actuator

Features

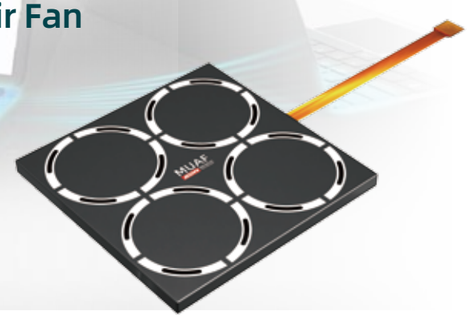
- High sensitivity and stable performance
- Low power consumption
- Better dust / water proof

Applications

- Display touch panel
- Intelligent switch

Model	HM0873	HM0003	HM0007	HM0011-000	HM0011-001
Appearance					
Operating voltage (V)	-100 ~ +200 (15ms max)	-30 ~ +100 (15ms max)	-30 ~ +100 (15ms max)	+15~ +55 (15ms max)	+15~ +55 (15ms max)
Layer(s) of ceramic	Single Layer	Multi-Layer (7 Layers)	Multi-Layer (3 Layers)	Multi-Layer (12 Layers)	Multi-Layer (12 Layers)
Capacitance (nF)	6±20%	400±20%	150±20%	180±20%	240±20%
Dimensions (mm)	Φ15x0.25	Φ21x1.55	Φ24x0.46	9x4x1.41	12x4x1.65

Piezo Air PumpMatrix Ultrasonic Air Fan



Features

- Highly efficient heat dissipation with airflow greater than 0.42CFM
- Solid state cooling solution
- Ultra-slim design, only 2.2 mm thick

Applications

- Laptop
- Smartphone
- Other Ultra-thin Electronics

Model	PF0001
Flow rate	0.42CFM(12L/min)
Sound pressure level (dB)	35
power wastage (w)	1
Max. pressure (Pa)	700
Dimension (mm)	36x36x2
Weight (g)	8.5
Service life (h)	≥45000

Piezo Air Pump

Features

- Compact and lightweight
- Low power consumption and no noise
- Quantity of air released can be adjusted simply

Applications

- Smart Blood Pressure Watch

Model	HQ0067-002
Drive frequency (KHz)	24±2
Pressure (KPa)	40
Flow rate (mL/min)	≥150
Outgassing time (s)	≤10
Power (output) (W)	≤1.5
Operating temperature (C)	0～45

MEMS Ultrasonic Sensor

Features
- Ultra-small size
- Low voltage drive

Applications
- Smartphone
- Tablet computer

Model	AW101
Appearances	
Resonant frequency (KHz)	100
FOV (°)	180
Operating voltage (Vop)	3~30
Capacitance (nF)	2.3
Operating temp. (C)	-40 ~ +85
Dimension (mm)	3.5 x 3.85 x2.9

Ceramic Tweeter Inside Earphone

Features
- Miniaturized design
- High reliability
- Stable performance

Applications
- TWS Headphones
- Hearing Aids

Model	MT0012
Resonant frequency (KHz)	30±2
Resonant impedance (Ω)	45±20
Operating Temp. (℃)	-40~+85
Dimensions (mm)	Φ9.5x0.44

Piezoelectric Speaker

Features

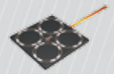
- Simple acoustic design- Milliwatt level power dissipation- High efciency conversion

Applications

- Cell phone/tablet sound alerts

Model	MT0006
Appearance	
S.P.L (dB)	80
Static capacitance (nF)	1200±30%
Resonant frequency (Hz)	300~20000
Max.input voltage (Vp-p)	16
Dimensions (mm)	30×20×2.2

Lineup

Prodcuts	Appearance	Phones / Tablets	Laptop	Smart Bracelet /Watch	Earphones	PSP console
Piezo Haptic Actuator		■	■	■	■	
Haptic Feedback Actuator		■	■	■		
Matrix Ultrasonic Air Fan		■	■			■
Piezo Air Pump				■		
MEMS Ultrasonic Sensor		■	■	■		
Piezoelectric Speaker		■	■			
Ceramic Tweeter Inside Earphone					■	■