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宁波凯普电子有限公司
NINGBO KEPO ELECTRONICS CO., LTD.

2023 | CATALOGUE
AUTO PARTS



宁波凯普电子有限公司
NINGBO KEPO ELECTRONICS CO., LTD.

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ABOUT US

公司简介

宁波凯普电子有限公司于1996年2月成立，是一家专注于人机交互零部件、模组和智能化产品的研发、制造、销售、服务于一体，深耕于人工智能和物联网领域的国家级高新技术企业，是国家级专、精、特、新小巨人企业。

公司目前的生产厂区有三个，主要生产基地在俞塘工业区，另外在红舒、高钱各有一个工厂，总共厂房面积大约3万平方米。现有职工600余人。

公司的主营业务是和汽车智能驾舱和自动驾驶紧密关联的人机交互产品，主要产品包括汽车声学产品，汽车光学产品和触感振动产品如：MIC/ANC模组、车用语音模组，AVAS，压电传感，氛围灯，触控模组，TOF模组等。产品在细分市场中拥有较高知名度，市场占有率逐年持续提升。

目前公司主要客户是跨国公司和汽车主机厂，包括美国通用(GM)全球、德国大众全球、法国法雷奥(Valeo)、安波福全球(APTIV)、美国伟世通(Visteon)、德国科世达、德国普瑞、吉利、长城、奇瑞、The Legacy等公司。公司被VALEO授予2019年度“卓越供应商奖”。

公司高度重视自主研发与创新，截止到2022年6月，公司已拥有授权各类专利177项，其中发明专利11项，实用新型专利100项，外观专利55项，国际专利申请4个，软件著作权7个。

公司的战略定位为：聚焦于人工智能(AI)和物联网(IoT)领域，通过不断掌握该领域的核心技术，持续研发新产品，做好汽车智能驾舱、自动驾驶的人机交互产品，并延伸到相关的智能化产品中。



COMPANY PROFILE OF KEPO

Established in 1996, Ningbo KEPO Electronics Co., Ltd. is focusing on HMI components & parts, Modules and intelligent product in AI and IOT industry, offering completely service including developing, manufacturing, selling and servicing in above mentioned industry field. It is also regarded as professional, sophisticated, characterized, and innovative "Little Giant" and high-tech in national level.

KEPO owns 3 plants, located in Yutang Industrial Zone (main plant), Hongshu Industrial Zone and Gaoqian Industrial Zone respectively with about 30000 m² total plant area and more than 600 employees.

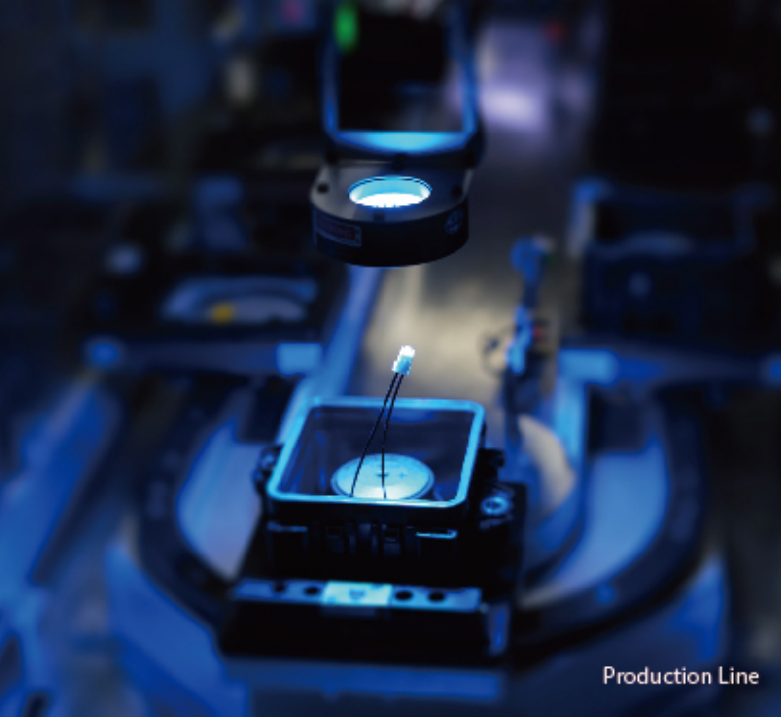
Our main business is HMI Product related to intelligent cabin and automatic driving, including Acoustic Products (MIC module, e-Call, alarms, AVAS, etc.), Optical Products (ambient lights, LED logo, door sill lights, carpet lights, charge indicator lights, grille lights, door warning light, etc.), Haptic Products (vibration exciter & module), Piezo Sensors, Time-of-Flight Module, Automotive Wireless Charging Module, etc.

Through the effort of our professional R&D and sales team, KEPO wins great popularity, increasing market share and was awarded the "2019 Supplier Excellence" by VALEO. We have established long term partnership with well-known transnational corporations and auto OEMs including GM Global, Volkswagen Global, VALEO, APTIV, Visteon, KOSTAL, PREH, GEELY, Great Wall Motor, CHERY, The Legacy, etc.

KEPO attaches great importance to independent R & D and innovation. As of June 30, 2022, we had obtained totally 177 patents, including 11 invention patents, 100 utility model patents, 55 appearance patents, 4 international patent applications and 7 software copyrights.

Our strategic positioning: Focusing on artificial intelligence (AI) field to create fabulous HMI products for intelligent cabin, automatic driving, and other related intelligent products in continuous exploring core technology and new product developing.





Production Line



Production Line



Detection Equipment

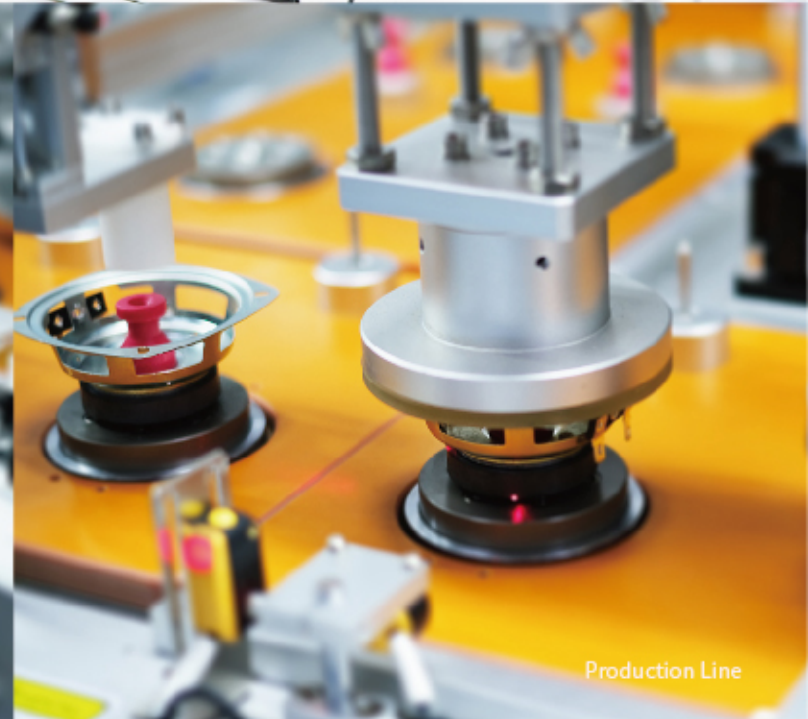


Anechoic Chamber

OUR QUALITY AND INSPECTION



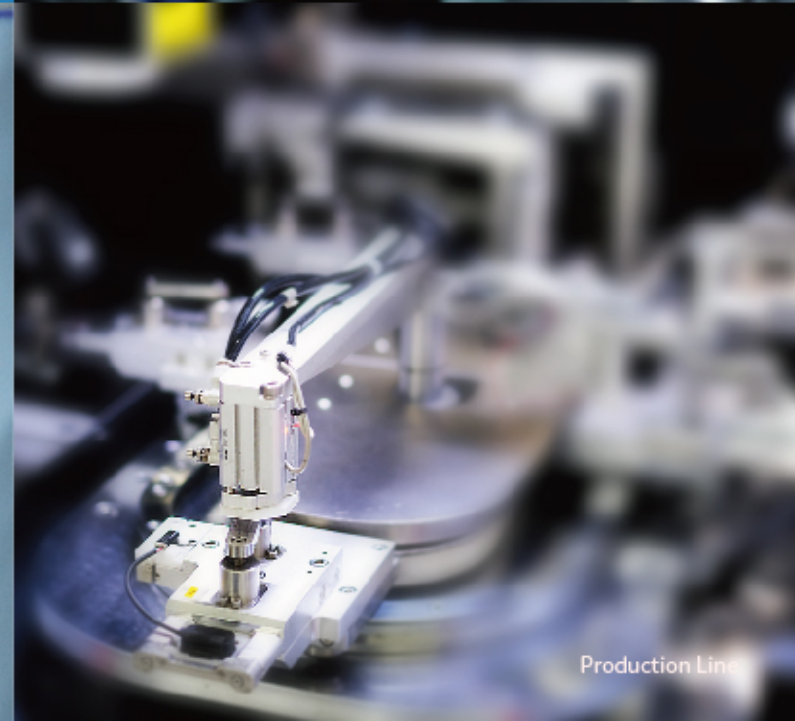
Production Line



Production Line



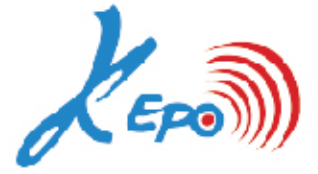
Factory Environment



Production Line



Production Line



CERTIFICATE 企业证书

ENTERPRISE CERTIFICATE





DIRECTORY

AVAS
电动车/油电混合车行人报警提示器 Page 01

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喇叭 Page 05

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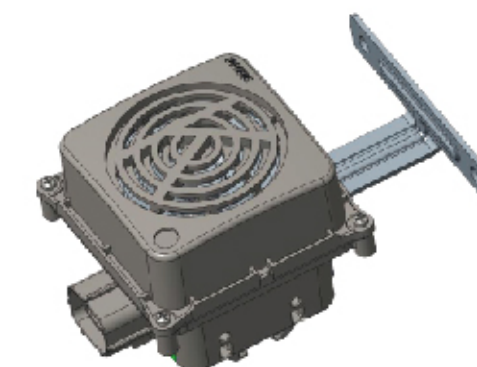
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AVAS

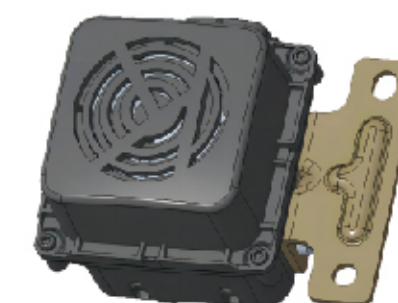


ITEM	SPECIFICATION
System Working Voltage	DC 9V~16V
Rated Working Voltage	DC 12V
Quiescent Current	≤ 1mA
Operating Current	< 2A
Sound Pressure Level	≤75dB@2m,1KHZ
Rated Impedance	8Ω
Rated Power	5W/10W
Distortion	≤10%
CAN Diagnostic Service Layer	ISO14229
CAN BUS Communication Baud Rate	500kbs & 125kbs, ISO-11898-2
Protection Grade	IP67



KEPO-0041A
Traditional AVAS Module

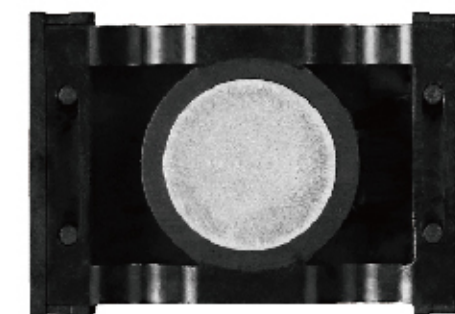
ITEM	SPECIFICATION
System Working Voltage	DC 9V~16V
Rated Working Voltage	DC 12V
Quiescent Current	≤ 0.5mA
Operating Current	< 2A
Sound Pressure Level	≤75dB@2m,1KHZ(Customizable)
Rated Impedance	8Ω
Resonance Frequency	280±15%
Rated Power	5W/10W
Distortion	≤5%
CAN Diagnostic Service Layer	Support
Upgrade Method	FOTA
Refresh	Flash Bootloader
Protection Grade	IP67



KEPO-0118A
AVAS & Welcome Integrated System

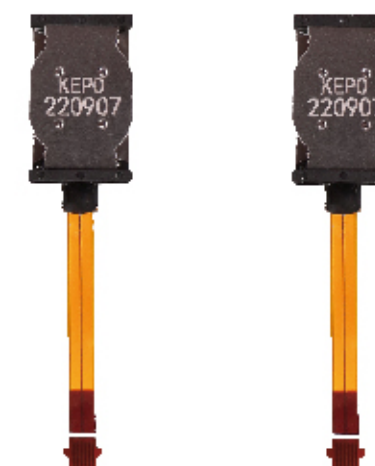


ITEM	SPECIFICATION
Impedance	8Ω±10%(1Vrms at 1kHz)
Acceleration(at 2.83Vrms)	≥1.4 Grms @100g load in middle at 140Hz ≥ 1.4 Grms @100g load in side at 140Hz
Input Power	Rated 0.5W / Max. 1.0W
Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
Leak sound(at 2.83Vrms)	≤35dB@ 100g load
Operating Temperature	-40~+85°C without loss of function
Store Temperature	-40~+85°C without loss of function
Out-Diameter	32×22 mm
Height	7 mm
Weight	6.5g±1g



KEPO-3222HP1-Q00044
Display & Touch Screen

ITEM	SPECIFICATION
Impedance	8Ω±10%(1Vrms at 1kHz)
Acceleration(at 2.83Vrms)	≥2.0 Grms @100g load in middle at 180Hz ≥ 2.0 Grms @100g load in side at 180Hz
Input Power	Rated 1.0W / Max. 2.0W
Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
Leak sound(at 2.83Vrms)	≤35dB@ 100g load
Operating Temperature	-40~+85°C without loss of function
Store Temperature	-40~+85°C without loss of function
Out-Diameter	22×13.5 mm
Height	7.8 mm
Weight	6.5g

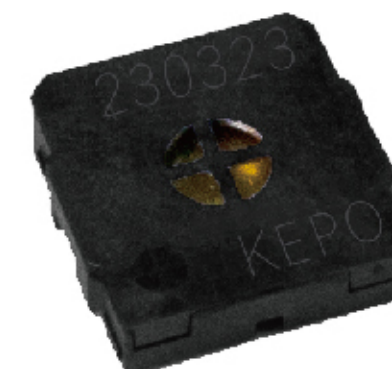


KEPO-2213B-Q00045
Push Button



SPEAKER

ITEM	SPECIFICATION
Impedance	8Ω±15%(1Vrms at 2KHz)
Resonance Frequency	850Hz±20% At 0.5W
Sound Pressure Level	88dB±3dB 0.5W/0.1M at 1.0,1.6, 2.0, 3.2kHz in average
Distortion THD	<5% At 1kHz/2.0Vrms
Frequency Range	F0 ~20KHz
Input Power	Rated 0.5W / Max. 0.8W



KP1515SMDSP1
SMD Speaker

ITEM	SPECIFICATION
Impedance	4Ω±20%(1Vrms at 600Hz at 20°C)
Sound Pressure Level	at 500,800,1500,2000Hz AVG(at 20°C) 82±2 dB @ 1w/1m
Resonance Frequency	260Hz±20%
Frequency Range	Fo ~10KHz
Input Power	Rated 4W / Max.8W
Distortion	<2.5% Max. at 1W(2V)
Waterproof	IP52
Effective Stroke	1.3mm
Maximum Stroke	2.7mm
Application	Glove Box, Dashboard



KP4020D1R4-Q00104 (E-call)
Hifi Speaker



KP3642ST1R50F400
Dashboard Speaker

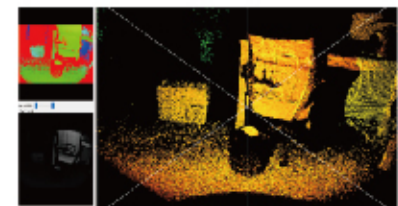
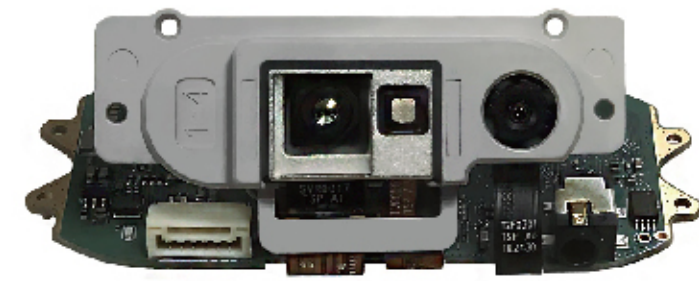
ITEM	SPECIFICATION
Impedance	50Ω±15% (1Vrms at 2KHz)
Sound Pressure Level	78±3dB @ 0.1W/0.5M at 1 kHz
Resonance Frequency	400 Hz±20%
Frequency Range	400Hz ~17KHz
Input Power	Rated0.3W/Max. 0.5W
Distortion	<5% Max. at 1kHz/0.1w
Application	Dashboard, Steering Pole



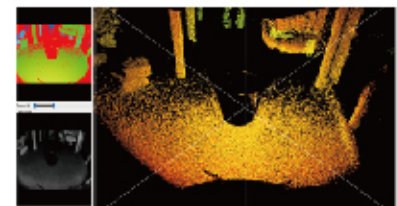
KP3210SP1R4
Hifi Speaker

ITEM	SPECIFICATION
Impedance	4 Q+15% (1V at 1000Hz)
Sound Pressure Level	80+3dB @ 1w/1m average at 0.6,0.8,1.0,1.2kHz
Resonance Frequency	300 Hz+20%
Frequency Range	FO~20KHz
Input Power	Rated 10W/Max.1.5W
Distortion	<5% Max at 1kHz/2.0Vrms
Application	Intelligent Home Appliance, SmartAudio, Vehicles

THE



Storage Bucket Test Results - Strong Light



Storage Bucket Test Results - Low Light

ITEM	SPECIFICATION
Measuring Distance	0.2m-6m (Customizable)
Resolution	640*480
FPS	TYP 30fps (Support 60fps)
Precision	Error<1cm
FOV	H.67°x V51°(Customizable)
Ambient Light Resistance	120klux
DATA Interface	GMSL (MAX96711)
Cold Start	<300ms
Working Voltage	9-16v
Operating Current	<300mA
Peak Current	<1.5A
Power Consumption	<3W
Working Temperature	-40~85 °C
Storage Temperature	-40~95 °C



AMBIENT LIGHT



ITEM	SPECIFICATION
Uniformity	60%~70%
Brightness	5~20cd
Working Voltage	9~16V (Battery Supply)
Battery Voltage	DC12V
Working Current	20 mA
Max Working Current	60 mA
Working Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Humidity	5%~45%
Application	Passenger Foot Lighting, Map bag lighting, Glove box lighting, Trunk lighting



DOORSILL LAMP

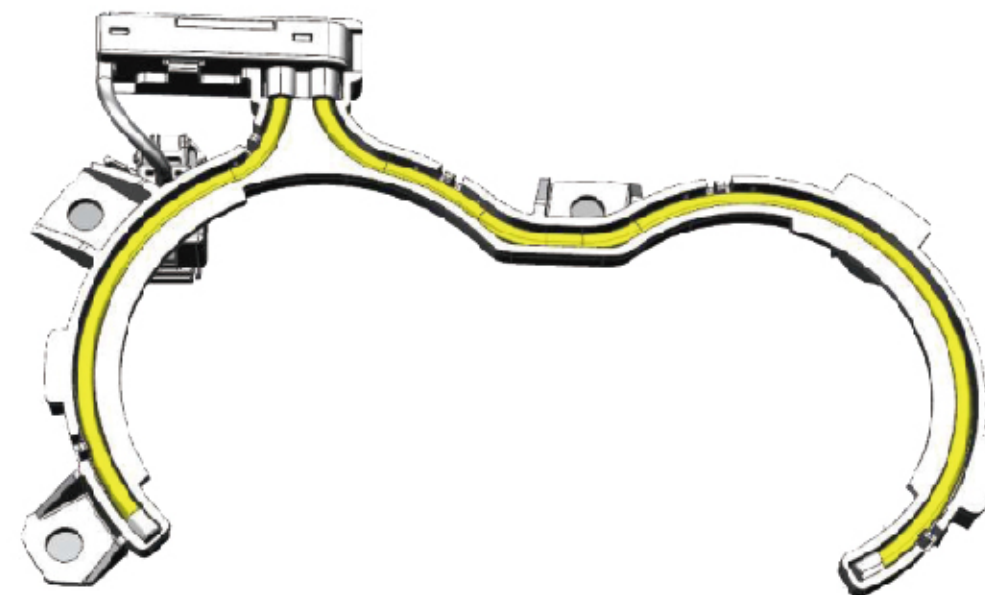
ITEM	SPECIFICATION
Uniformity	60%~70%
Brightness	5~20cd
Working Voltage	9~16V (Battery Supply)
Battery Voltage	DC12V
Working Current	60 mA
Max Working Current	150 mA
Working Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Humidity	5%~95%
Application	Threshold, Logo, Dashboard, Nameplate



ITEM	SPECIFICATION
Uniformity	60%~70%
Brightness	5~20cd
Working Voltage	9~16V (Battery Supply)
Battery Voltage	DC12V
Working Current	60 mA
Max Working Current	70 mA
Working Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Humidity	5%~95%
Application	Two side backseat side panels

VANITY MIRROR

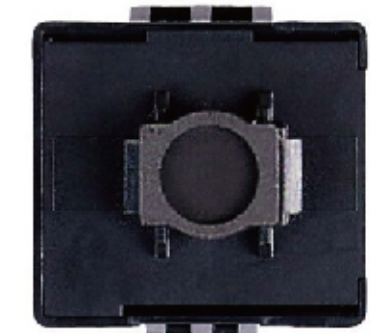
CUP HOLDER AMBIENT LIGHT



ITEM	SPECIFICATION
Uniformity	60%~70%
Brightness	5~20cd
Working Voltage	9~16V (Battery Supply)
Battery Voltage	DC12V
Working Current	60 mA
Max Working Current	100 mA
Working Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Humidity	5%~95%
Application	Cup Holder, IP

MICROPHONE MODULE

ITEM	SPECIFICATION
Directivity	Omni directional
Sensitivity	-26±2dB, 0dB=1V/Pa, 1KHz, 8V
Operation Voltage	8±10% V.D.C
Max. Current Consumption	25mA, at 8V
Max Input Sound Level	120dB, at 1KHz, 8V
Distortion	<1.0%, @94dBSPL@1KHz; <3%, @106dBSPL@1KHz
Signal to Noise Ratio	>65dB, A-weighted



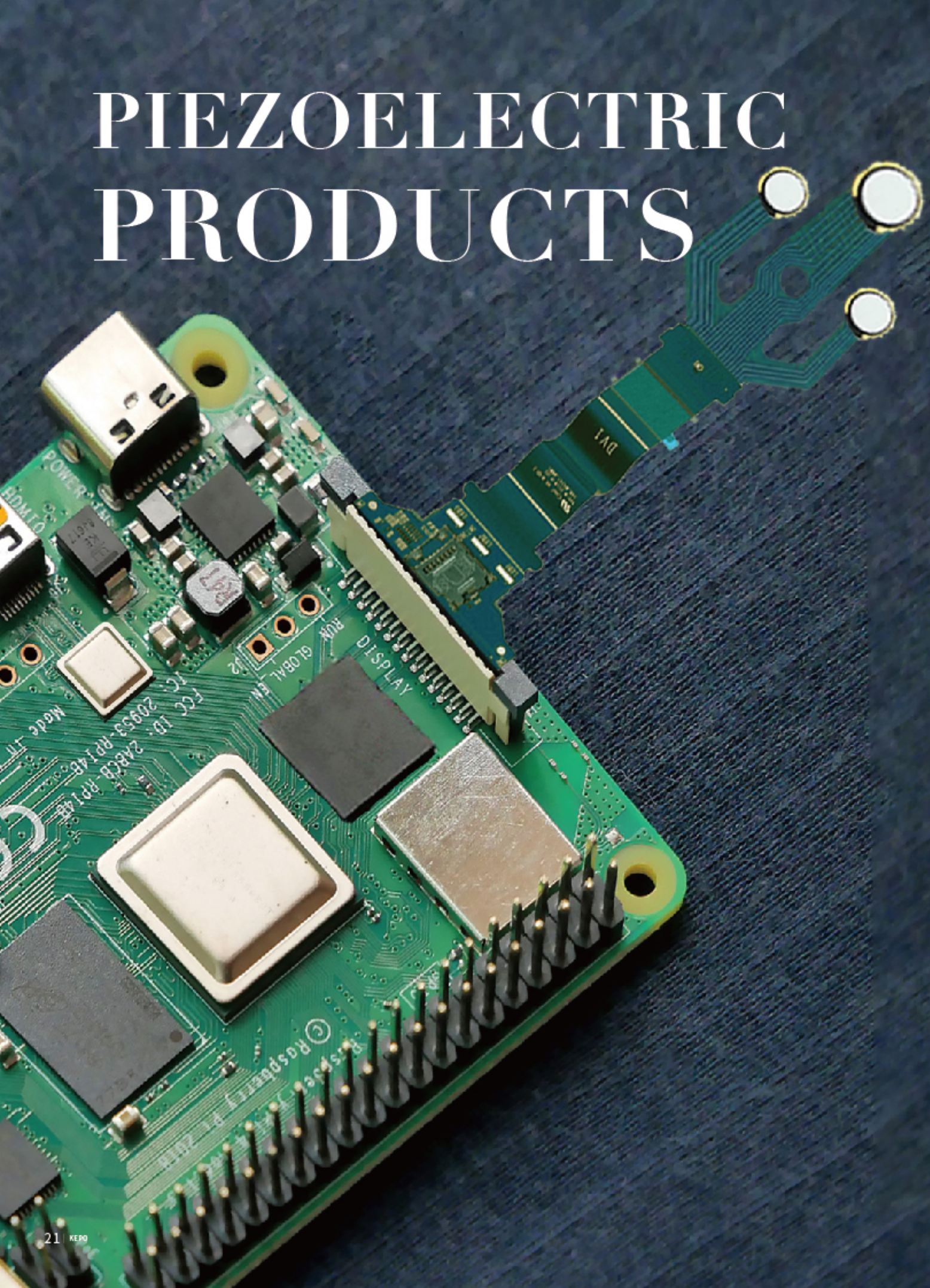
A2B Microphone

ITEM	SPECIFICATION
Directivity	Omni directional
Sensitivity	-3.5±3dB, 0dB=1V/Pa, 1KHz
Operation Voltage	8±0.8 V.D.C, 680 OHM
Current Consumption	3~9mA, at 8.0VDC/680 OHM
Output impedance	<200 Ω
Total Harmonic Distortion	<1.0%, @94dBSPL@1KHz
Signal to Noise Ratio	>60dB, A-weighted



Voice Call Microphone

PIEZOELECTRIC PRODUCTS



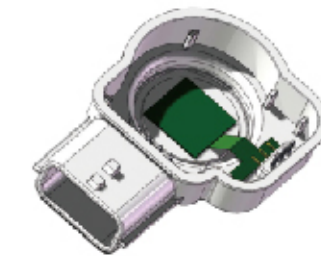
PCT-G6803|0193A|KPUS-40FD-14TR-H

ITEM	SPECIFICATION
Maximum Input Voltage	60Vp-p Square Wave /max.
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +85°C
Sound Pressure Level	≥105dB /56Vp - p/ 3.4KHz/200cm



PCT-G6803
PCT Alarm

ITEM	SPECIFICATION
Rel. Permittivity	1650±200
Piezoelectric Coupling Factor	63±5%
Operating Temperature Range	-40~+105°C
Store Temperature Range	-40~+110°C



0193A
Piezoelectric Film Element

ITEM	SPECIFICATION
Center Frequency	40±1KHz
Capacitance at 1KHz	4400±20% pF
Sound Pressure Level	≥103dB, @40KHz, 30cm, 10Vrms(0db=0.2nbar)
Sensitivity	≥-87dB, @ 40KHz, 30cm, 0dB=0.2nbar
-6dB Directivity	110×50°(typ.)
Maximum Input Voltage	160Vp-p/Max
Insulation Resistance	100MΩ min
Ring Time Max	≤1.6ms
Application	Automobiles, Parking Meters, Water Level Meters



KPUS-40FD-14TR-H
Piezoelectric Ultrasonic Sensors