waytronic®

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Voice IC and Intelligent IOT

One-stop Solution Service Provider

Shenzhen Waytronic Electronics Co., Ltd.

■■■ Company Certification:

Shenzhen Waytronic Electronics Co., Ltd.located in Baoan district, Shenzhen city, Guangdong province, was founded in Guangzhou in 1999. After more than 20 years' development, the company has become a national high-tech enterprise integrating R&D, production, sales and service, focusing on software and hardware design such as voice technology research, voice product design and control.

■■■ Business Scope: The business involves household

appliances, medical equipment, security alarm, automotive electronics, multimedia, communication, telephone recording, industrial automation control, toys and interactive consumer products.

After more than 20 years' development, the company's integrated chips and modules have formed a perfect product scheme system, which mainly includes: playing, recording, MP3, Bluetooth WiFi and speech recognition.

Measuring Instrument

Vehicle Eletric

Medical Equipment

Security Entrance Guard

Advanced Toy Gifts

Household Health

Voice Production

——Everybody can
make their own chips
Scan for more>>

■■■ Customer:

铁将军 TIEJIANGJUN	美的 Midea	GREE 格力
Haier 海尔	Kaadas 凯迪仕·智能锁	Galanz 格兰仕
蚂蚁金服 ANT FINANCIAL	Panasonic 松下电器	ECOVACS 科沃斯机器人

■■■ Enterprise Strength

■■■ Company Culture:

Mission
Provide smarter interactive experience , make complexity simple and make life better!

Vision:
Become the most influential company in the voice and intelligent Internet of Things industry.

Value:
Create and share together , create maximum value for customers and achieve employees' dreams.

Behavior Standard:
I am the root of all problems, so far as I am concerned.

60+ Professional RD. There are more than 60 R&D personnel, 47 of whom have middle and senior professional titles, all of whom have bachelor degree or above in related majors, and have rich IC software and hardware development capabilities and design experience.
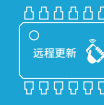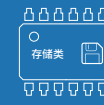
1500万 The monthly production capacity can reach 15 million pieces. with a factory area of 2,000 square meters, it has more than 200 employees and a monthly production capacity of over 15 million pieces. Following the development of world chip technology, it has launched various high-quality and cost-effective voice-related products.

NO.3↑ On the top three of private Voice IC enterprises of Chna. Devoting ourselves to the research and development of voice technology for more than 20 years, accumulated more than 30,000 cases of high-quality cooperative development and application, and has excellent IC software and hardware development capability and design experience.

Content

Product Catagory

Playable Kind

Name	Advantafge	Available Capacity	Voice Quality	Audio Output	Customized Function
WT588F02A/B-8S	Voice content can be erased and functions can be defined.	170 seconds	Good	DAC/PWM	High exploitability.
WT588F08A-8S	Erasable, the user can program and download by himself.	680 senconds	Good	DAC/PWM	High exploitability.
WT588F02A-16S	Voice content can be erased and functions can be defined.	170S~3H	Good	DAC/PWM	High exploitability.
WTN6XXX	OTP	40~170S	High	DAC/PWM	Customizable.
WTN6-MASK	Cost advantage, production cycle in one month.	40~170S	High	PWM	Customizable.
WTN1系列	Cost advantage, short seconds.	10~40S	High	DAC/PWM	Not customizable.
WT588S/HXX-16S	Single chip, large capacity, low cost, Flash type.	320~1280S	High	DAC/PWM	Not customizable.

High-quality MP3

Name	Advantafge	Available Capacity	Voice Quality	Audio Output	Customized Function
WT2003S-16S (可替代)	Low cost MP3 with high quality.	128M Flash、32G card	High-quality	DAC	High exploitability.
WT2003S-20SS (可替代)	MP3 high quality	128M Flash、32G card/USB drive	High-quality	DAC	High exploitability.
WT2003S32-20N (可替代)	There is no need to connect to memory or power amplifier.	Built-in 32M Flash and 32G/U disk.	High-quality	DAC/PWM	The developability is average.
WT2000-28SS (可替代)	MP3 high quality	128M Flash、32G card/USB drive	High-quality	DAC	High exploitability.
WT2605系列	MP3 high quality	128M Flash、32G card/USB drive	High-quality	DAC	High exploitability.
WT2003D-32N	Industrial MP3 chip, small size, LED driver.	128M Flash、32Gcard/USB drive	High-quality	DAC 16bit	High exploitability.
WT2003H0/2/4-16S WT2003H0/2/4-24SS	Industrial MP3 chip, small size, LED driver.	128M Flash、32Gcard/USB drive	High-quality	DAC 16bit / 0.5W class-D	High exploitability.
WT2003HP0/2/4/8-32N	Industrial-grade small-volume voice chip, supporting high-quality MP3 decoding, with built-in voice of 80 -800 seconds.	128M Flash、32G card /USB drive	High-quality	DAC 16bit / 0.5W class-D	The developability is average.
WT2003W-16S	Industrial low-cost high-quality MP3 chip.	128M Flash、32G card /USB drive	High-quality	DAC 16bit	High exploitability.

Recording Kind

Name	Advantafge	Available Capacity	Voice Quality	Customized Function
WT588F02A-16S	Single chip recording, high cost performance.	70 seconds	Good	High exploitability.
WT588F02A-16S+FLASH	External Flash, large capacity.	128M Flash	Good	High exploitability.
WT2605-16S	High quality MP3 recording (key control)	Flash orTF card、USB drive	High-quality	High exploitability.
WT2605-32N	Industrial MP3 chip, small size, high sampling recording.	Flash、TF card、USB drive	High-quality	High exploitability.
WT2605-24SS	High quality MP3 recording.	Flash、TF card、USB drive	High-quality	High exploitability.
WT2000D-32N	Industrial MP3 chip, small size, high sampling recording.	128M Flash、32G card/USB drive	High-quality	High exploitability.
WT2000H2/4-16S WT2000H2/4-24SS	Industrial voice chip, supporting high-quality MP3 recording, with internal 0.5W power amplifier.	128M Flash、32G card/USB drive	High-quality	High exploitability.
WT2000HP2/4/8-32N	Industrial small volume voice chip with internal 0.5W power amplifier.	128M Flash、32G card/USB drive	High-quality	High exploitability.
WT2000W-16S	Low cost and high quality MP3 recording chip.	128M Flash、32G card/USB drive	High-quality	High exploitability.

Blueteeth wi-fi Kind

Name	Advantafge	Available Capacity	Voice Quality	Customized Function
WT2605-24SS	High-quality, flexible development, high-quality speech decoding and playing, dual-mode Bluetooth, recording, streaming media, real-time decoding and playing, etc.	128M Flash, 32G card /USB flash drive.	High-quality	High exploitability.
WT2605-16S	High quality, flexible development, high quality speech decoding and playing, recording, Bluetooth function.	128M Flash, 32G card /USB flash drive.	High-quality	High exploitability.
WT2605-32N	High quality, flexible development, high quality speech decoding and playing, dual mode Bluetooth.	128M Flash, 32G card /USB flash drive.	High-quality	High exploitability.

■ Orange indicates new products.

■ Blue indicates products that can be replaced.

Voice Recognition Kind

Name	Advantafge	Recognition distance	Recognition distance	Language	Customized Function
WTK6900F	Long recognition distance, support front-end signal processing, far-field noise reduction, adaptive noise reduction and other technologies.	10 meters 90%	300 articles.	Chinese, English	Customizable command words
WTK6900G	Support front-end signal processing, adaptive noise reduction and other technologies.	3~5 meters 90%	80 articles	Chinese	Customizable command words
WTK6900C	Low cost, multilingual.	1~2 meters 90%	Within 48 words.	32 kinds	Customizable command words
WTK6900B	Low power consumption and low cost.	0 ~ 1m 90%.	Within 30 words.	32 kinds	Customizable command words
WTK6900H-24SS	Small size, low power consumption, low cost and high recognition rate.	1~5 meters above 95%.	60 articles.	mandarin	Customizable command words
WTK6900H-32N	Small size /QFN32, low power consumption, low cost and high recognition rate.	1~5 meters above 90%.	60 articles.	mandarin	Customizable command words

Remote Voice Updating Plan

Name	Advantafge	Available Capacity	Interface	Speed	Customized Function
WT588E02A-8S	Change one song at will (the amount of transmitted data is small).	170S	IIC	170Kb/S	High exploitability.
WT588E02/08B-8S	Change one song at will (the amount of transmitted data is small).	170~680S	SPI	uncertain	High exploitability.
WT2003S (可替代)	High quality transmission, no data processing , and convenient MP3 operation.	Flash	UART	51KB/S	common
WT2605X-24SS	High quality transmission, no data processing, and convenient MP3 operation.	Flash/TF卡	UART	51KB/S	High exploitability.

Memory Kind

Name	Advantafge	Type	Package
WT25XXFLASH系列	Complete series and senior technical service team.	8M~128Mbit	SOP8、SOM8
Patch TF card series.	Patch packaging for easy use.	128M、512M/1GB/2GB	QFN8

Playable Module Fancy Gift Kind

Name	Advantafge	Available Capacity	Voice Quality	power supply mode	Way of Changing Voice Mode
WT588F module	Cost-effective, users can download by themselves.	170S	Good	button battery	Upper computer +downloader
WT2003USB module （replaceable)	Easy download and high sound quality.	64mins （128Mbit)	High-quality	lithium battery	Analog USB flash drive
WT2605 module	Easy download and high sound quality.	64mins （128Mbit)	High-quality	lithium battery	Analog USB flash drive

🟧 Orange indicates new products.

🟦 Blue indicates products that can be replaced.

Recording Module Gift Kind

Name	Advantafge	Available Capacity	Voice Quality	power supply mode	Way of Changing Voice Mode
WT588F Recording Module	Cost-effective	70 seconds	Good	button battery	Recording
WT2605 Module	High-quality recording, supports Bluetooth recording and MIC recording of mobile phones, and can record by connecting Bluetooth without opening the product.	128M Flash	High-quality	lithium battery	Recording

Power Amplifier Kind

Name	Voltage rage	driving power	driving power	Amplifier type	Channel number
WT4890	DC 2.2~5.5V	8R1W	3~9mA	AB	single track
WT8002	DC 2.5~5.5V	4R2.5W	3mA	D	single track
WT85711	DC 2.5~5.5V	2R5W	5mA	AB/D	single track
WT8509	DC 2.5~9.2V	4R8W	3mA	AB/D	single track
WT8623	DC 5.7~17V	4R30W	6.5~9mA	D	single track
WT1312	DC 1.8~6.0V	4R2W	3uA	PWM	single track
WT8871	DC 2.5~5.5V	2R5W	5mA	AB/D	single track
WT8302	DC 2.5~6.0V	4R2.9W	3mA	D	single track
WT9110	DC 5.0~15V	4R20W	20mA	AB/D	single track
WT8576	DC 2.7~6.2V	2x8R3W	10mA	AB/D	single track
WT8673	DC 5.0~26V	2x4R80W	9mA	Stereophonic sound	single track

Intelligent Voice Sensing

Modle	Name	Way of Communicating	Working Voltage	Working Temperature	Package
WTS201XX-M01	Ultrasonic module	Serial port baud rate 115200.	3.3~5.5V	-20℃~+85℃	/
WT280104-M0	Bluetooth ranging module	Bluetooth data transmission.	3.3V	-20℃~+85℃	/
WT588FM05	Infrared ranging speech module	One-line serial port control mode.	3.3~5.5V	-20℃~+85℃	SOP8
WT2003DS06	Pressure sensing processing chip.	Serial communication	3.3~5.5V	-20℃~+85℃	/
WT588F02KD-24SS	Display key expansion chip	IIC communication control mode.	3.3~5.5V	-20℃~+85℃	SSOP24
WT2003DS03	NTC/DS18B20 Temperature Detection Display Speech Module.	Serial communication	3.3~5.5V	-20℃~+85℃	/

播放类

WT588F02A/B-8S

Re-programmable

Users can program by

themselves, burn IC with

large capacity and support

for 680 seconds.

The lock is unlocked.
Welcome home!

Attributes

1. Power supply range: DC 1.8V~5.5V

2. Standby power consumption: less than 5uA.

3.Audio output mode: DAC/PWM.

4. Maximum supported capacity: 680 seconds.

5. It can be erased repeatedly. Users can program and burn IC by themselves.

Specifications

Interface	SPI / IIC /One line/two lines/buttons.
Size	4.9*6.0*1.75(mm)
Capacity	At the sampling rate of 16kHz, it can support DC 1.8V~5.5 in 680 seconds at maximum.V
Working Voltage	
Working Temperature	-40℃~+85℃
Package	SOP8

WT588F02A-8S   **WT588F02B-8S**   **WT588F08A-8S**

Main Products

WT588F02A-8S

Voltage: DC 2.0~5.5V   Capacity: 170S   Application:

Current: less than 5uA   Audio Output: DAC/PWM   Electronic locks, medical health, small household appliances, smart homes, consumer electronic products, etc.

Other: Users can program and burn IC by themselves.

WT588F02B-8S

Voltage: DC 1.8~5.5V   Capacity: 170S   Application:

Current: less than 5uA   Audio Output: DAC/PWM   Electronic locks, medical health, small household appliances, smart homes, consumer electronic products, etc.

Other: Users can program and burn IC by themselves.

WT588F08A-8S

Voltage: DC 1.8~5.5V   Capacity: 680S   Application:

Current: less than 5uA   Audio Output: DAC/PWM   Electronic locks, medical health, small household appliances, smart homes, consumer electronic products, etc.

Other: Users can program and burn IC by themselves.

Application

Electronic Lock   Medical Health   ETC   Minor Electric Appliance   Toy

WTN6 Voice IC

WT588SXX/HXX Series

OTP芯片

40 seconds~
170 seconds

normothermia

External Flash

Customer can make their own voice content program, and burn it into the chips.
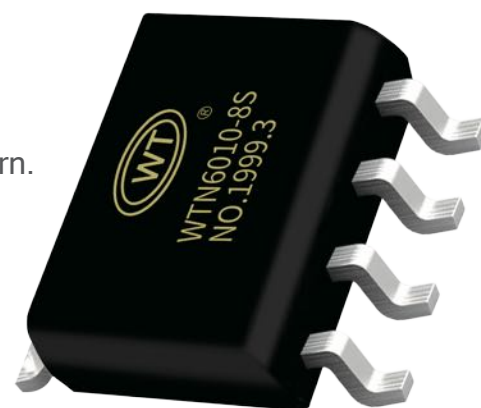
Vacuum cleaner is on.

Functions:

1. Support 8-level volume adjustment function.

2. 223 segments of speech can be loaded.

3. Standby power consumption is less than 5ua.

4. Working voltage: 2.2 V ~ 5.2 V.

5. 12bit PWM/DAC output, which can directly push 8R 0.5W horn.

Functions:

1. Support 8-level volume adjustment.

2. Standby power consumption is less than 5ua.

3. Support to load 1000 segments of speech (WAV format audio).

4. Audio data is stored in Flash, which supports 4M bit~128M bit Flash.

5. With the upper computer software, customers can make voice programs with the upper computer and download them to Flash.

Specifications

Interface	Pulse counting, one-line serial port and two-line serial port.
Size	4.9*6.0*1.75(mm)
Capacity	40~170秒
Working Voltage	2.2V~5.2V
Working Temperature	-40°C~85°C
Package	SOP8 / DIP8

Specifications

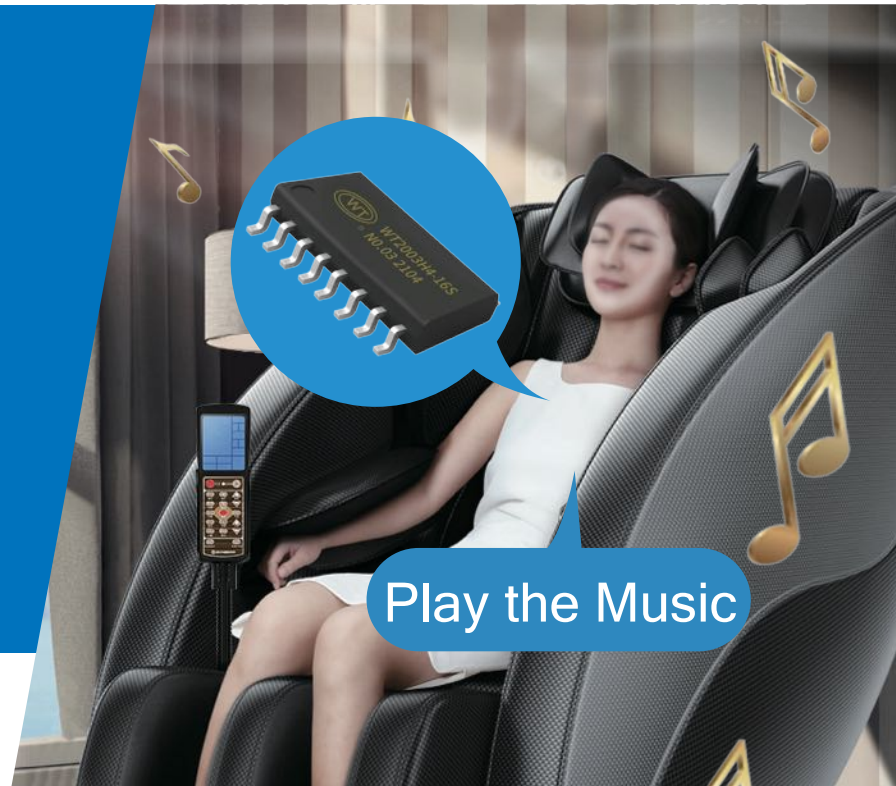| Interface	Pulse count, one-line serial port and two-line serial port
Size	4.9*6.0*1.75(mm).
Capacity	40~170 seconds.
Working Voltage	2.2V~5.2V
Working Temperature	-40°C~85°C
Package	SOP8 / DIP8

高音质MP3播放·工业级

WT2003H4-16S

Re-programmable

Built-in 4M memory and 0.5W power amplifier (highly integrated).

0 peripheral circuit

Play the Music

Attributes

1. power supply range: DC 2.0V~5.5V, industrial chip.

2. Highly integrated 4M memory /0.5W power amplifier

3. High sound quality: MP3 file of 320Kbps.

4. Support plug-in 64G TF card/USB flash drive.

5. No peripheral circuit is needed.

Specifications

Interface	UART / AD / LED / SPI / USB / SD
Size	6*10*1.5(mm)
Capacity	Built-in 4M Flash(340 seconds voice), with a maximum 64G TF card. DC 2.0V~5.5V
Working Voltage	-40°C~+85°C
Working Temperature	SOP16
Package	

WT2003D

WT2003W

Main Products

WT2003D

◆ Industrial MP3 chip

◆ Support 4-bit LED digital tube control.

◆ Support temperature detection.

◆ Support 24 key extensions.

◆ Package: QFN32.

WT2003H Series

◆ Industrial voice chip, supporting high-quality MP3 decoding, with built-in 0.5W power amplifier.

◆ There are three capacities (80 seconds /340 seconds /800 seconds voice length) to choose from: ≤2ua.

◆ Operating power consumption: ≤6ma (no load).

◆ Sleep time: 100 milliseconds wake up.

◆ Package:SOP16 / SSOP24 / QFN32

WT2000W

◆ Low cost, high quality MP3 chip with built-in 0.5W power amplifier.

◆ Sleep power consumption: ≤10ua.

◆ Working power consumption: ≤15ma (no load).

◆ Sleep time: 100 milliseconds wake up.

◆ Package: SOP16.

Interphone	Hospital Bed
Massage Chair	Treadmill

Building Intercom	Smart Toilet
Balance Car	GamePplayer

Massage Chair	Hospital Bed
Smart Toilet	Balance Car

All the above products support peripheral Flash/SD card/U disk.

waytronic®

WT588R02A-16S

WT588R02A-16S

WT2605-24SS

Single Chip Recording

128M Flash can be externally installed.

Built-in voice and live recording.

Main Products

WT588R02A-16S

Voltage: DC 2.2V~5.5V   Capacity: Internal recording for 70 seconds, and external 128M Flash.

Voice Quality: 24kbps   Power Consumption: less than 5uA

Application:

Greeting cards, recording stickers, etc.

WT2605-24SS

Voltage: DC 3.0V~5.2V   Capacity: 4~128M Flash、32G TF card/U drive

Voice Quality: 320kbps   Resource: UART、SPI、USB2.0、AD interface

Audio format: MP3、WAV

Application:

Health care, small household appliances,

Smart home, consumer electronic products, etc.

WT2605-32N

Voltage: DC 2.2V~5.5V   Capacity: 4~128M Flash、64G TF card/USB drive

Voice Quality: 384kbps   Resouce: UART、SPI、USB2.0、AD口

Audio format: MP3、WAV、、ADPCM、WMA

Application:

Recording pen, recording breastplate, interphone fire recording, consumer electronic products, etc.

WT2000H4-24SS

Voltage: DC 2.5V~5.5V   Capacity: 4~128M Flash、64G TF card/USB drive

Voice Quality: 320kbps   Resource: UART、SPI、USB2.0、AD口，0.5W output

Audio format: MP3、WAV

Application:

Interphone, recorder, telephone recording, fire recording, consumer electronic products, etc.
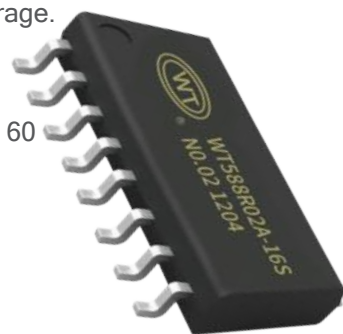
Attribute

1. power supply range: DC 2.2V~5.5V

2. Single chip can record, and can also be externally connected with flash extended storage.

3. High sound quality: 24kbps.

4. Capacity: Single chip can record for 70 seconds, and external memory can record for 60 minutes.

5. The length of recording time and the number of recording files are not limited (can be deleted at will).

Specification

Interface	SPI
Size	10*6*1.75(mm)
Capacity	Single chip can record 70 seconds, and external memory can record DC 2.2V~5.5V for 60 minutes.
Woeking Voltage	
Working Temperature	-20℃~+85℃
Package	SOP16

Application

Recording gift cards.

Recording paste

Telephine

Intercom

Security recording

WT2605-24SS

双模蓝牙，符合蓝牙5.0规范

支持多种录音方式：蓝牙录音、通话录音，线路录音，MIC录音

完整的语音解决方案，支持拓展多种应用，即录即播，流媒体播放，实时解码等功能

Play the song!

Attribute

1. the audio codec supports 16-bit ADC and 16-bit DAC, and the signal-to-noise ratio is as high as 90dB.

2. Support USB sound card, USB interface realization (USB HID) and slave (USB card reader) functions
3. Support plug-in Flash, TF card and U disk, and support SD card and U disk upgrade function.

4. High-quality recording and playing can be realized.

5. Support UART control.

规格

communication interface	UART通讯
Transmit power	2 dbm
sensitivity	-90.5 dbm
operating voltage	DC 3.0V~5.2V
Working temperature	-40°C~+85°C
seal and package	SSOP24

WT2605-24SS
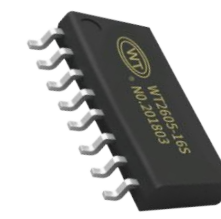
WT2605-16S

WT2605-32N

Main Product

WT2605-24SS

Voltage	DC 3.0V~5.2V	Flash capacity：	512K	Peripheral Interface:	UART、SPI、USB2.0
Current :	35mA	Audio Format:	MP3、WAV		
Peripheral Interface:	UART、SPI、USB2.0				

Application: Intelligent Bluetooth speaker, Bluetooth megaphone, balance car, voice recorder, vehicle-mounted equipment.

WT2605-16S

Voltage	DC 3.0V~5.2V	Flash Capacity:	256K	Peripheral Interface:	SPI、USB2.0
Current:	35mA	:	MP3、WAV		

Application: Intelligent Bluetooth speaker, Bluetooth megaphone.

WT2605-32N

Voltage	DC 3.0V~5.2V	Flash Capacity::	256K	Peripheral Interface:	UART、SPI、USB2.0
Current:	15mA	Audio Format:	MP3、WAV		

Application: Intelligent Bluetooth speaker, Bluetooth megaphone, balance car, recording pen.

Application

Bluetooth Speaker

Balance Car

Voice Recorder

Megaphone

karaoke

Voice Recognition Kind

WTK6900FA-56N

10 meters long-distance recognition, recognition rate ≥ 97%.

Large capacity, supporting hundreds of command words recognition.

Front-end signal processing, supporting far -field noise reduction and adaptive noise reduction.

Start cooking.

Attribute

1. Large capacity speech recognition chip, supporting hundreds of commands.

2. Ultra-long recognition distance, 10m recognition distance in quiet environment; 3. 35mA current in non-awake state.

4. Support multiple wake-up command control.

5. Recognition rate ≥97%.

Specification
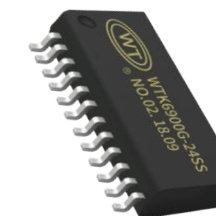
communication interface	Standard UART communication
microphone	Electret microphone
audio output	16bit DAC
operating voltage	DC 2.8V~3.6V
Working temperature	-40°C~+85°C QFN56
seal and package	QFN56

WTK6900FA-56N

WTK6900FB-56N

WTK6900G-24SS

WTK6900C-48L

WTK6900B-28SS

Main Products

WTK6900FA-56N

Voltage: DC 2.8V~3.6V   Capacity: 100 orders.

Current: 35mA   Recognition distance: 10meters

External interface: UART、SPI   Recognition methods: Single microphone recognition.

Application: Chandelier, intelligent air conditioner, intelligent drying rack, intelligent rice cooker, smart plug.

WTK6900FB-56N

Voltage: DC 2.8V~3.6V   Capacity: 300 orders

Current : 35mA   Recognition distance: 10 meters

External interface: UART、SPI   Recognition methods: Support single microphone and dual microphone recognition.

Application: Chandelier, intelligent air conditioner, intelligent drying rack, intelligent rice cooker, smart plug.

WTK6900G-24SS

Voltage: DC 2.8V~5.0V   Capacity: 80 orders

Current : 70mA   Recognition distance: 4 meters

External interface: UART、IO   Recognition methods: Single microphone recognition.

Application: Chandelier, heating table, intelligent drying rack, intelligent electric rice cooker, smart plug.

Application

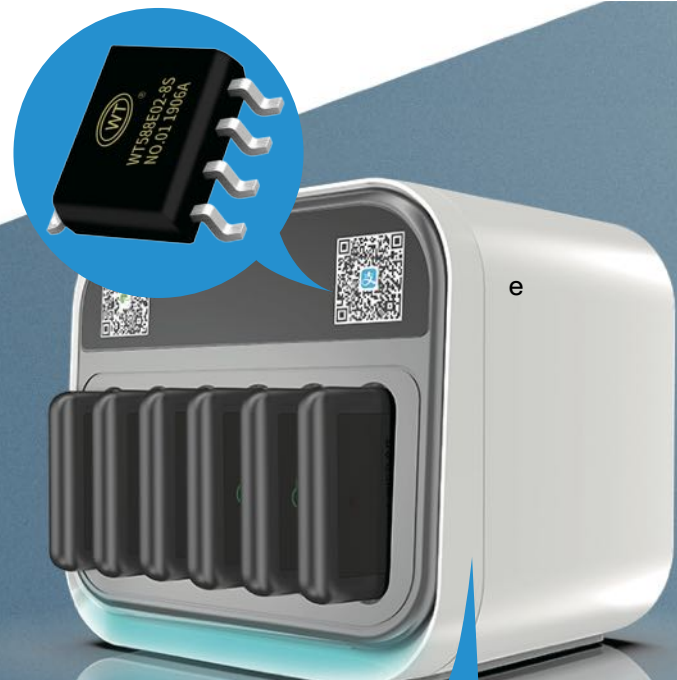Chande   Intelligent air conditioner   Smart Elevator   intelligent electric rice cooker   Intelligent drying rack

WT588E02A-8S

The amount of audio data is small, with maximum of 2Mbit in 170 seconds.

The user can change a sentence at will.

The transmission speed is fast, up to 170 kbps.

Welcome using shared charging point.

WT2605

Users can upgrad OTA.

High data compression rate and simple

serial port operation in MP3 format.

Share together!

Attribute

1. the amount of audio data is small, with a maximum of 2 mbit in 170 seconds. 2. the user can change a certain speech at will.

3. The maximum data transmission is 170 kbps.

4. Development materials can be provided to facilitate customer development.

Specification

communication interface	IIC
audio output	16bit DAC/PWM
operating voltage	DC 2.0V~5.5V
Working temperature	-20℃~+85℃
Package	SOP8

Application

Shared charging point	Shared bicycle	Outdoor billboard	Chain prompter

Attribute

1. High quality sound quality.

2.MP3 general format.

3.UART serial port control

4. The transmission rate is as high as 512kbps.

Specification

communication interface	Standard UART communication
audio output	16bit DAC
operating voltage	DC 2.6V~5V
Working temperature	-40℃~+85℃
seal and package	TSS0P24

Application

Shared charging point	Shared bicycle	Outdoor billboard	Chain prompter

WT25QXXB-8S

Re programmable

Full range(4~128M)

Stable supply and stable price.

normal body temperature

Attribute

1. power supply range: DC 2.3V~3.6V

2. Full range: 4Mbit~128Mbit 3. Professional technical support team.

4. Stable and reliable supply.

5. Peripheral 0 circuit.

规格

Size	SPI
Capacity	4.9*6.0*1.75(mm)
Working Voltage	4Mbit~128Mbit
Working Temperature	DC 2.3V~3.6V
	-40℃~+85℃
Package	SOP8/SOM8

WT25QXXB-8S

T-FLASH

WT25QXXB-8S

Voltage: DC 2.3V~3.6V

Voltage：4M~128Mbit

Power consumption: 小于5ua

Application:

Greeting cards, recording stickers, etc.

T-FLASH

Voltafe: DC 2.3V~3.6V

Capaciity: 128M、512M、1G、2G

Resource: SPI、UART、AD口

应用领域：

Massager, consumer electronic products, etc.

典型应用 application

Massage chair　　Smart home　　industrial/commercial unit　　consumer electronics　　toy

Playable Module Fancy Gift

WT588F Module（SoundSticker）

WT588F Module
（**SoundSticker**）

WT2003 USB Module

WT2605 Module

Users can change voice

Play for 2 hours and stand by for 2 years

Duration：170S

Main Product

WT588F module（**SoundSticker**）

Power Supply Mode:：Two LR1130 button battery   Capaci Maximum 70s   The way of changing the content: downloader

Voice Quality: 12K~36Kbps   Triggered way: light sensor   Application: Greeting card gifts
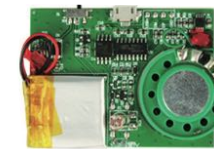
WT2003USB module

Power Supply Mode: :Lithium Battery   Capacity: The maximum support is 3600 seconds.   Application: Greeting card

Voice Quality: 32K~192Kbps

Triggered way: Light sensor button

Voice replacement method:Card reader mode

WT2605 module

Power Supply Mode : :   Lithium Battery   Capacity: Maximum 2160s   The way of changing the content: Blueteeth recording

Voice Quality: 32K~160Kbps   Triggered way: light sensor/button   Application: present card

Attribute

1. power supply: two LR1130 button cell.

2. The voice can be stored for up to 170 seconds
. 3. The user can change the voice.

4. Functions can be customized.

5. The product has a shell.

Specification

Teiggered way	light sensor
Size	61*33*6.5(mm)
Capacity	Maximum 170S
Electric supply	Two LR1130 button cell.
Working temperature	-20℃~+85℃

Application

greeting card	present	Wine packaging	Tea packaging	jewelry packaging	Mooncake packaging

WT2605 Blueteeth Recording Module

Easy Sound

Remote voice replacement.

Download greeting cards by mobile phone.

Convenient recording

Convinience

Change your content even in a long distance

Attribute

1. the user can change the voice.

2. 100mAH lithium battery power supply.

3. The function can be customized.

4. Support multiple trigger modes, such as key press, light sensor, tongue spring, door magnet, etc.

Specification

Control mode	Button
measure	67.2mm*37.2mm*6.0mm
capacity	maximum 540 S
operating voltage	DC 3.0V~4.2V
Working temperature	-20℃~+85℃

Product Comparison

| Chip type	OTP chip	Traditional recording chip	MP3 recording chip	MP3 Bluetooth recording chip.
Recording mode	Tool burning and writing	MIC recording	MIC recording	MIC recording and bluetooth recording.
Sound quality	The sound quality is poor, and there is a crackling sound when playing.	Ordinary sound quality	Good sound quality, MP 3 sound quality.	Good sound quality, MP3 sound quality and high fidelity .
Playback mode	The fixed playback mode of cannot be changed.	The fixed playback mode of cannot be changed.	The fixed playback mode of cannot be changed.	You can change the playback mode by yourself using USB flash drive.
Voice replacement	Disposable products, can't change voice.	Disposable products, Replaceable voice.	Repeatable voice, only. USB connected computer replacement.	You can change the voice repeatedly, either by connecting to a computer or by using Bluetooth.
Application occasions	Propaganda application products, disposable voice products, children 's toys.	Propaganda application products, cheap voice products, children's toys.	Propaganda application products, Children 's toys , telephones and intercom products.	Publicity applications , children 's toys, Warm reminder function, DIY reminder personalized consumption.
External sensor	The external sensor can only be fixed in one way and cannot be replaced.	The external sensor can only be fixed in one way, Can not be replaced.	The external sensor can only be fixed in one way and cannot be replaced.	External sensor mode customer. Or users can according to their own situation. It is convenient to change in different ways.
Application location	low-end product	Medium and low-end products.	Medium and low-end products.	Mid-end and high-end products.

Application

greeting card	present	Wine packaging	毛绒玩具	plush toy	Chain prompter

Power Amplifier Kind
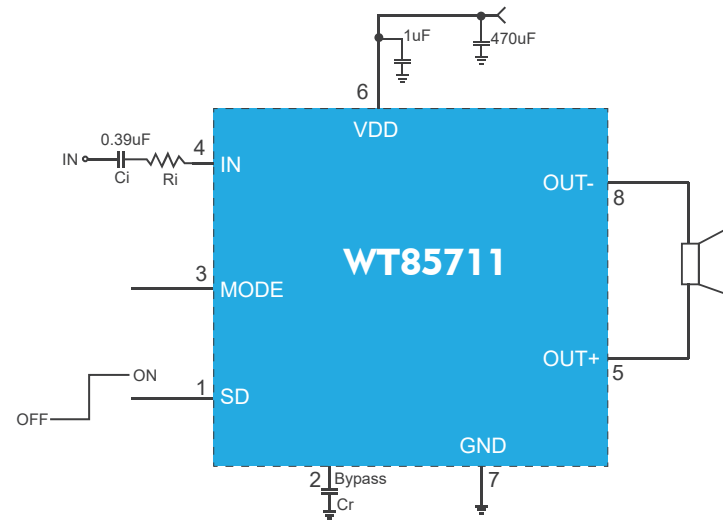

WT85711 is a 5.0W mono audio amplifier with FM interference-free, power supply ranging from 2.5V~5.5V, and class AB power amplifier and class D power amplifier mode switchable.

Attribute

- Working voltage: DC 2.5V~6.0V
- Po=5.5W@10% THDVDD = 5V,RL=2Ω
- Thd+n = 0.1% @ 3.7v4ω po = 1.0w no output filter.
- The PWM frequency is 500kHz.
- Class AB and class d mode switching.

- 90% efficiency.
- Excellent low noise suppression and Pop suppression on and off.
- Automatic recovery of thermal protection.
- Compatible with XPT8871.
- ES0P package
- Comply with ROHS compliant directives.
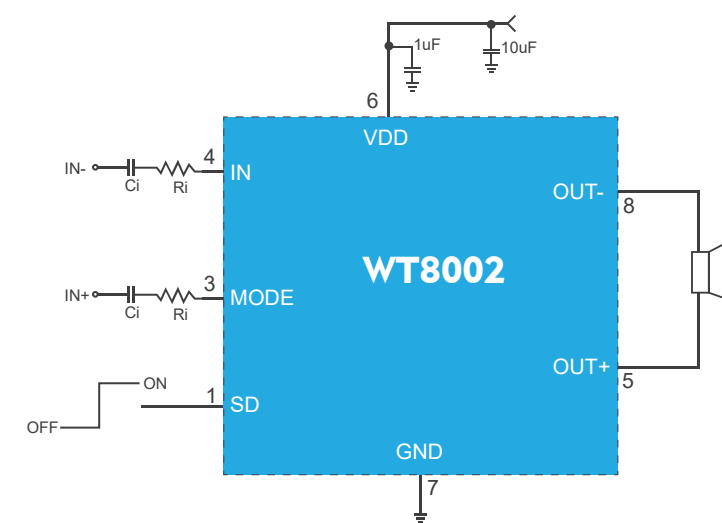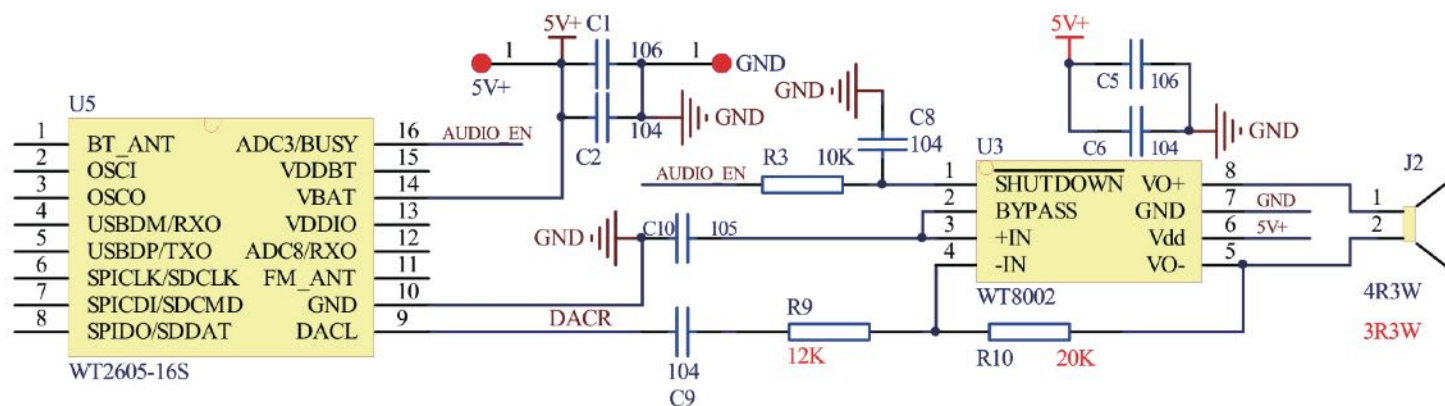
WT8002 is an audio power amplifier IC with power-off mode. When working at 5V input voltage, the average power on the load (3ω) is 3W, and the distortion is less than 10%.

Specification

- Working voltage:DC 2.5V~5.5V
- Po=3.1W@ 10% THD VDD = 5.0V,RL=4Ω
- Po=1.8W@ 10% THD VDD = 5.0V,RL=8Ω
- THD + N=0.05%@5V8Ω Po=1.0W

- No output filter.
- The modulation frequency is 750 kHz.
- 90% efficiency of POP sound suppression.

- Various protection functions.
- SOP8L package.
- Comply with ROHS compliant directives.

Application

Desktop speaker

bluetooth speaker

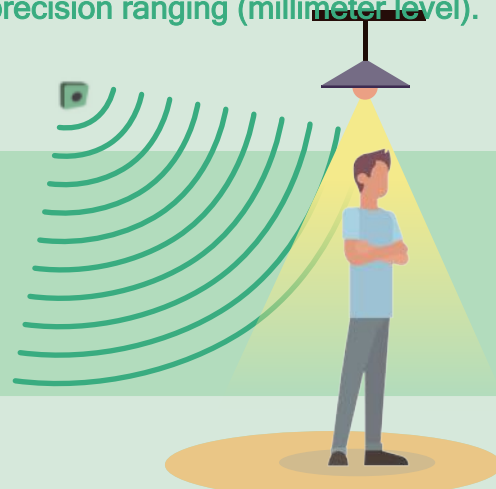loudspeaker

earphone

Outdoor sound

WTS201XX-M01

Provide quick sensing application solutions and shorten product development cycle.

Simplify BOM and reduce comprehensive BOM cost.

Existence detection

Small size, low power consumption and high precision ranging (millimeter level).

Ultra-low power consumption and low delay ultrasonic TOF sensor can detect tiny motion under any lighting conditions.

Attribute

1. Using serial communication, it is easy to get started.

2. It can be used in complex environments (such as outdoor lighting, glass, etc.).

3. The product supports the upper computer software matched by our company, which can quickly verify the product and directly upgrade the program for special customers.

Application
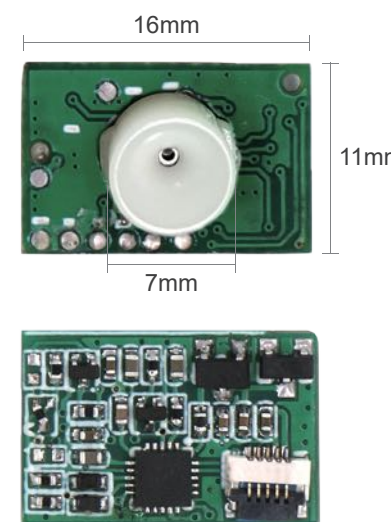
Intelligent lock   Smart home   induction cooktop   microwave oven   electronic balance


**WTS201XX-M01** Ultrasonic ranging module

16mm / 11mm / 7mm

- ◆ Anti-environmental noise;
- ◆ Upgradeable program directly;
- ◆ Accurate ranging and small size;
- ◆ Equipment wake-up distance can be set;
- ◆ Adopt serial communication, easy to get started;
- ◆ With low-power wake-up function, the average power consumption is below 80ua in low-power mode at present, and lower power consumption will be born in the future;
- ◆ Can be used in complex environments (such as outdoor lighting, glass, etc.);
- ◆ Support the upper computer software matched by our company, quickly verify the products, and directly upgrade the programs for special customers; Ranging distance: 30 cm~350cm, ranging angle 180 degrees, which can be adjusted by users according to the structure;
- ◆ Sampling frequency can be adjusted from 10 Hz to 1 Hz;

WT280104-M0 Bluetooth ranging module

33mm

- ◆ Bluetooth sends data;
- ◆ Accurate ranging and small size;
- ◆ Sampling frequency can be adjusted from 10hz to 1hz;
- ◆ Ranging distance: 30cm~350cm, ranging angle 180 degrees, which can be adjusted by users according to the structure; The overall power consumption is controlled within 50ua, and the product is below 1ua without jitter; Products can be viewed through the mobile phone WeChat applet;
- ◆ Can be used in complex environments (such as outdoor lighting, glass, etc.);
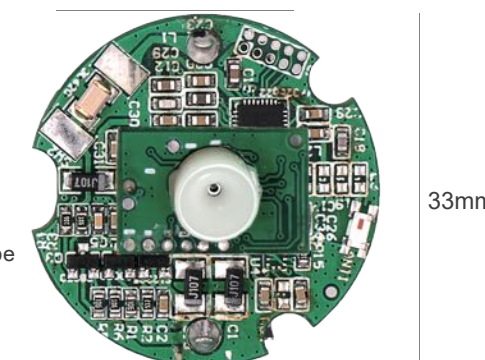
The frequency is 1Hz, the maximum test distance is 2m, and the average power consumption is about 15UA in working condition.

20°
100mm
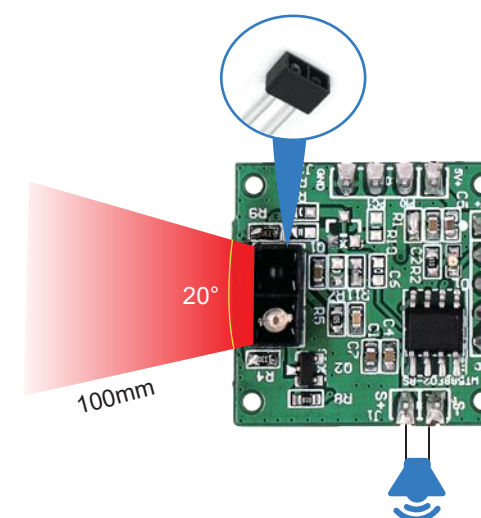
WT588FM05 Infrared ranging speech module

- ◆ Voice playing function with infrared detection;
- ◆ The distance of infrared ranging can be adjusted;
- ◆ It can support 16bit PWM/DAC output and directly drive 8R 0.5W speakers. It can support WAV files of 4.6K~32Khz;
- ◆ It can support 224 segments of addresses, and more requirements can be expanded;
- ◆ Customers can also change the voice content inside the chip online through the matching downloader. Chips are available.

Sweeping Robot

Automatic Door Opening Detection

Intelligent Electric Rice Cooker

Sensor Application

Intelligent Hand Sanitizer

Electric Ttoothbrush

Sex Products
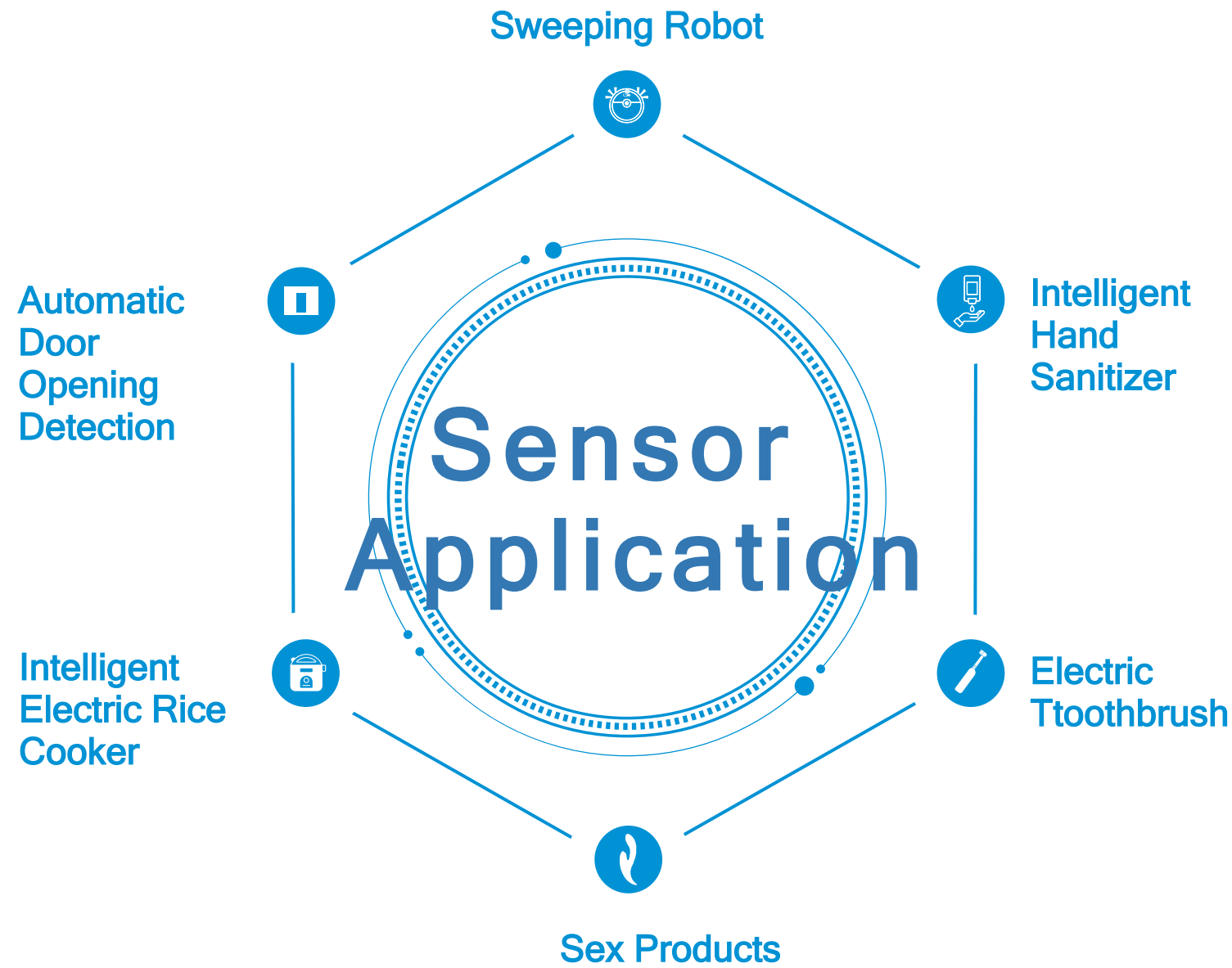
Pressure Sensing

WT2003DS06

◆ Signal to noise ratio: 4000: 1;

◆ Repeatability: CV < 5%;

◆ Response time: millisecond level;

◆ Pressure range: 0 ~ 300 mmHg (0-400 gf/cm 2);
◆ The resolution: < 10mmHg(0.5gF/ sensing area);
 The minimum trigger pressure: < 50mmHg(2.5
◆ gF/ sensing area); Nonlinear degree: R2>0.95 (
 linear range: 100 ~ 300 mmHg);
◆

◆ High sensitivity, high resolution, high signal-to-
 noise ratio and high linearity pressure sensing.

WT2003D-32N

◆ Support digital tube display;

◆ Support MP3 playback, copy voice to Flash, etc.

◆ It can support 16bit PWM/DAC output and directly
 drive 8R 0.5W speakers.

◆ It can support WAV files of 4.6K~32Khz;

◆ Support external pressure sensor.

◆ Standard serial port outputs pressure data.

Nanoionic Material → WT2003D-32N →
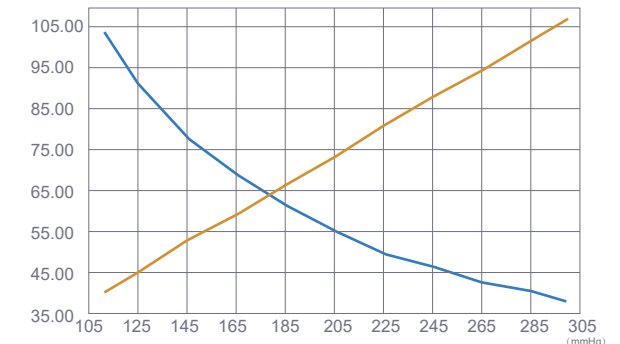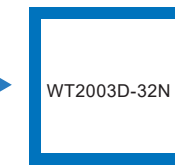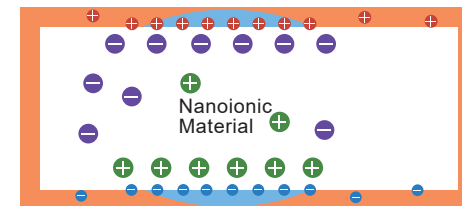
Extended Voice Chip

WT588F02KD-24SS

◆ Can support 4-bit digital tube to adjust brightness;

◆ It can support 32 light-emitting diodes (LEDs) to dim independently.

◆ With button wake-up, active scanning function and button return;

◆ Circuit with built-in brightness level-duty cycle is adjustable at 8
 levels, and 1K frequency is used;

◆ It can control the digital tube to display different characters, and can
 also adjust the single-segment digital tube.

◆ Customers can also change the voice content inside the chip online
 through the matching downloader.

Temperature detection display voice module

WT2003DS03

◆ Support digital tube display;

◆ With NTC/DS18B20 detection temperature;

◆ Support MP3 playback, copy voice Flash, etc.

◆ Support key reading and detection of long press and short press;

◆ NTC customers can customize the list and import it into the chip.
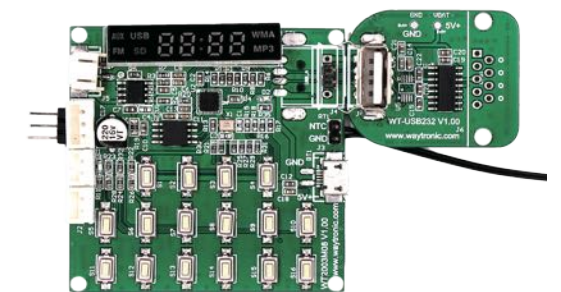
■■■ Service Faith

Waytronic always insists on providing fast voice and intelligent Internet of Things application solutions for customer engineers and shortening the product development cycle.

With the goal of meeting and exceeding the expectations of customer engineers, we are committed to providing customer engineers with high-quality voice solutions and comprehensive optimal BOM that exceed expectations.

Sales Engineer

Solution Engineer

FAES Engineer

WT 唯创知音 WAYTRONIC

Custo-mer

1) Sales Engineer: Understand the specific needs of customers and be familiar with customer applications

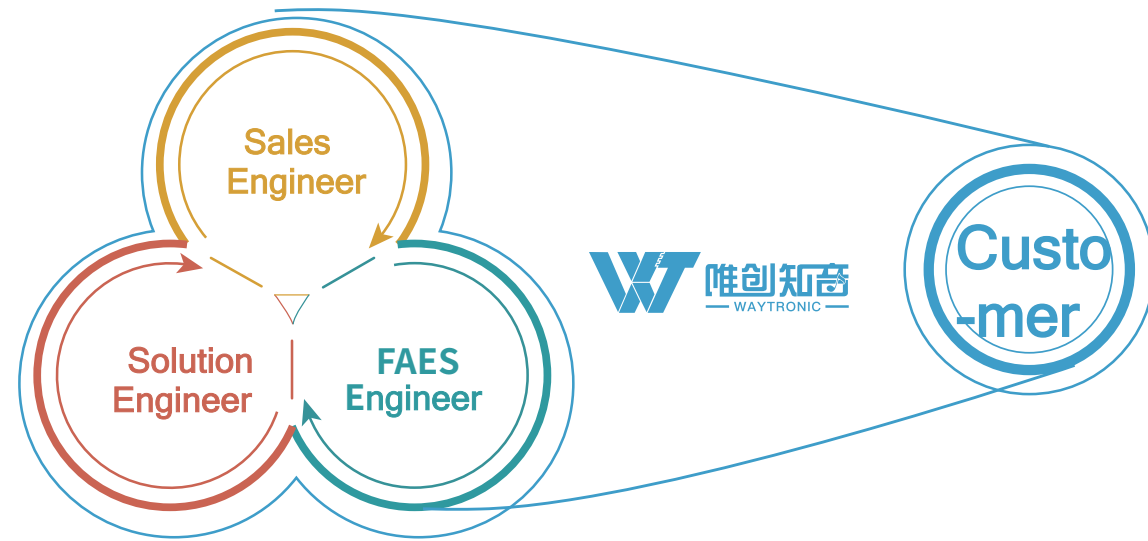2) Scheme Engineer: Grasp the customer's application requirements in depth to provide fast application, high-quality voice scheme and comprehensive optimal BOM

3) FAES Engineer: It is composed of experienced senior engineers in the industry, and provides one-to-one/many-to-one technical support services.

Voice application plan

Senior sales engineer team

Internet of things application scheme.

Customer engineer

Product research and development team.

Professional production quality control team

Senior product manager

■■■ Development History

1999
The company was formally established in Guangzhou.

2001
Began to explore and develop speech chip and speech recognition technology.

2002
Focus on R&D and innovation in the voice field.

2005
Launched the first industry standard chip -WTV, and gained the application popularity of therapeutic apparatus in the industry.

2006
Beijing weichuang hongtai technology co., ltd was formally established for expanding the northern market.

2008
Introduced classic products and supporting host computer software -WT588D series, and established Shenzhen Branch in the same year.

2011
Establish weichuang intelligent platform department, research and develop solutions and products in related fields of smart home.

2013
The release of MP3 classic product -WT 2003 has been widely recognized and praised by the market.

2014
The headquarters of the company was moved from Guangzhou to Shenzhen, and Shenzhen Weichuang Zhiyin Electronics Co., Ltd. was formally established as the head office and Guangzhou Weichuang was changed into a subsidiary.

2017
Passed the national high-tech enterprise certification and won the high-tech enterprise certificate.

2018
To better serve customers in the Yangtze River Delta, Shanghai Branch was established.

2019
WT588F series new products were introduced, which made the chip smaller and more powerful, and realized 65 % replacement application.
.

2021
Set up a research and development team of sensor+voice application technology to expand the application range of voice chips.