



充电桩产品系列

PRODUCTS FOR CHARGING POINTS

读卡器 | 发卡系统 | 安全认证模块 | 充电桩用户卡

Card Readers | Card Issuing Systems | ESAM & ISAM | User Cards for Charging Points

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工业智能读卡设备的领导者
A GLOBAL LEADER IN INDUSTRIAL SMART CARD READERS

 铭特科技
MINGTE TECH

1 | 关于我们 | ABOUT US

深圳市铭特科技有限公司创立于2005年1月，位于深圳市南山区方大城，拥有员工400名，所属云南国资云内动力全资子公司。公司集研发、制造、销售、服务于一体的国家级高新技术企业和软件企业，公司主要致力于为行业客户提供定制化的支付解决方案，如支付系统、自助终端机、停车场系统、加油加气、电动汽车等能源多个行业。

铭特科技的研发团队经过近二十年的工作磨合形成，在应用于室外恶劣环境的智能读卡设备领域积累了丰富的经验。为支付设备、新能源行业及工业级领域提供高性价比的核心技术与产品。

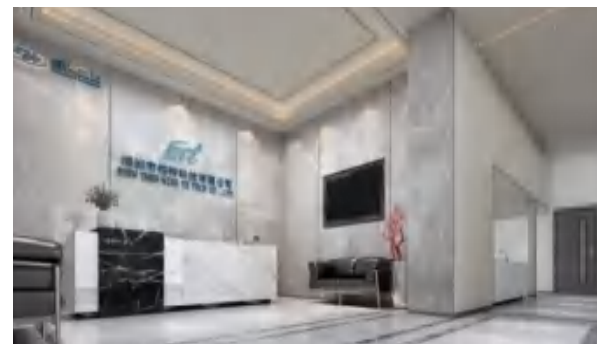
公司遵循“以人才为根本，以市场为导向，以科技为依托，以管理为核心”的发展理念，在发展过程中凝聚了一批高、中级人才队伍，形成了较为完整的管理、品质控制和售后服务体系。

Founded in January 2005, SHENZHEN MINGTE TECH CO., LTD. (MINGTE) is located in Fangda Plaza, Nanshan District, Shenzhen, with 400 employees and is a wholly-owned subsidiary of Yunnan State-owned Yunnei Power Co., Ltd.

MINGTE is a national high-tech and software enterprise integrating R&D, manufacturing, sales and service, mainly dedicated to providing customized payment solutions for industry customers, such as payment systems, self-service terminals, parking systems, gas refuelling, electric vehicles and other multiple energy industries.

MINGTE's R&D team has been formed after nearly two decades of endeavor and cooperation and has accumulated rich experience in the field of smart card reader devices applied to the harsh outdoor environment. Provide cost-effective core technologies and products for payment devices, new energy industries and industrial-grade fields.

MINGTE follows the development concept of "talent as the foundation, market-oriented, science and technology-based, management as the core", gathered a group of senior and mid-level talents and formed a relatively complete management, quality control and after-sales service system in the progress.



企业认证 | Enterprise Certification



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产品证书 | Product Certificates



3 | 系统、流程及应用 | Systems, Processes and Applications

充电桩充值发卡系统 | Recharging & Card Issuing System



营业网点 | Branches

用户卡的分发与绑定；用户卡灰锁后解锁；用户信息变更、注销、查询等

User Cards Issuing, Binding and Recharging, User Cards Status Unlock after Lock, User Info Change, Cancel and Query

运营中心 | Operation Center

用户卡、ESAM、ISAM卡集中发行；用户资料管理，桩体认证，营业网点认证

User Cards, ESAM Cards & ISAM Cards Issuing, User info management, Charging Point Authentication, Branches Authentication

充电桩 | Charging Points

用户认证，充电消费，用户卡余额查询

User Cards Authentication, Charging & Payment, User Cards Balance Query

消费者 | Consumers

营业网点购卡，充值，消费

Cards Purchasing from Branches, Recharging & Cards Payment on Charging Points

用户卡 | User Cards

用户在售电系统和桩体之间传递购电信息、用电信息、管理信息的载体

The electricity cards for users to buy electricity and recharge

ESAM卡 | ESAM Cards

安装于桩体内完成对用户卡的身份识别，保证桩体与用户卡数据交换的安全性、完整性。做到一桩体一号，便于系统对桩体的管理
桩体号一经安装运行即不再改变

Installed inside the charging points, completing identification for user cards, making sure the security and integrity of data exchange between charging points and user cards. 1 point has 1 number, easy for points management

ISAM卡 | ISAM Cards

安装于售电系统的服务营业网点，完成对用户卡的身份识别、充值、修改pin

Installed at service branches of power selling system, completing identification for user cards, recharging and pin changing

4 | 我们的市场及我们的合作伙伴 | Our Markets & Our Partners

我们的市场 | Our Markets

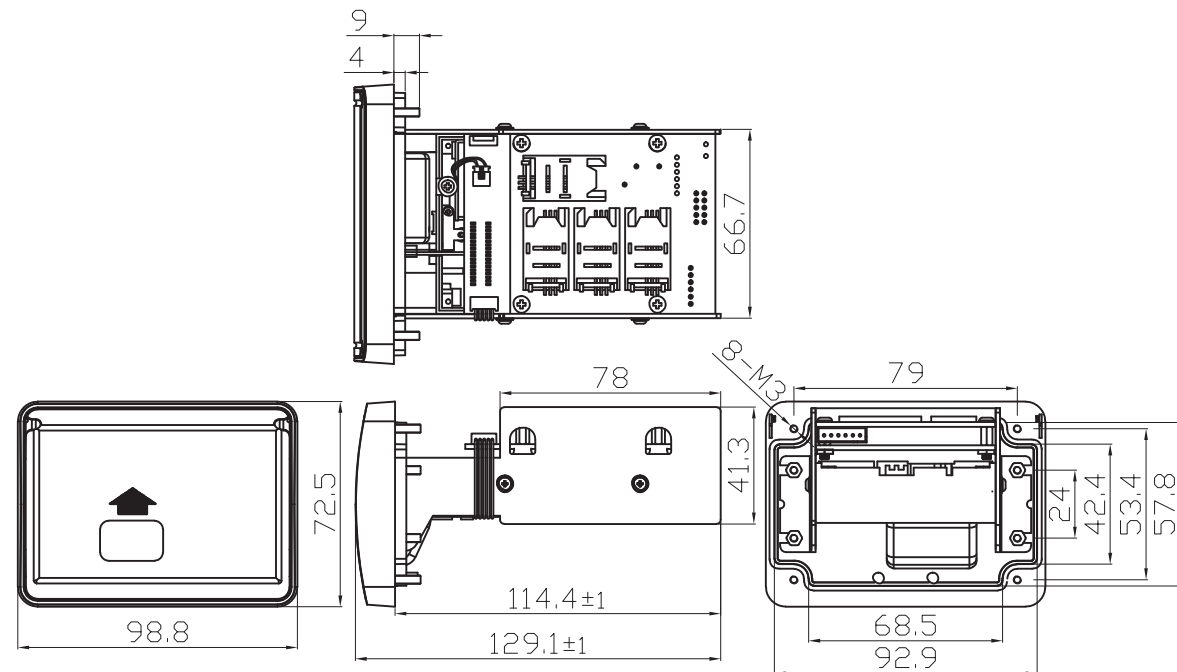
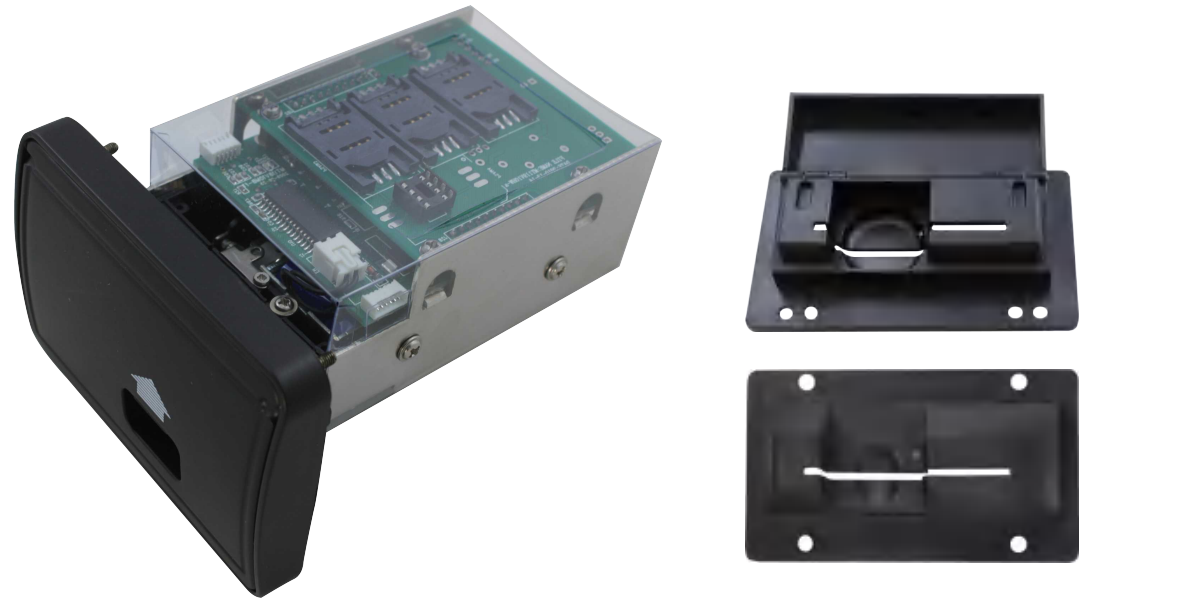


我们的合作伙伴 | Our Partners



MT318-610

手动读卡器 | Manual Card Readers



产品特点 | Features

- 支持符合ISO7816标准的接触式IC卡的操作
Support contact IC card (ISO7816)
- 支持符合ISO14443 Type A和Type B标准的非接触IC卡的操作
Support contactless IC card (ISO14443 TYPE A & B)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70 (Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 四个SIM卡槽(3个PSAM、1个ESAM)
Supplied with 4 SIM card slots (3 PSAM, 1 ESAM)
- 具有自动锁卡与弹卡功能、具有防堵塞、防灰尘功能、环境适应性好
With automatic card lock & eject function, clog-proof, dust-proof, good environmental adaptability
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用，支持内部封装，降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 非接触式IC卡插入操作，杜绝刷卡不稳定的现象
Support contactless IC card inserting to avoid card swiping failure
- 结构防震设计，最大限度解决外力造成的卡机自弹卡问题
Shock-proof design to avoid card ejection by external force
- 配多型号插卡口
With multi bezel (optional)

应用 | Applications

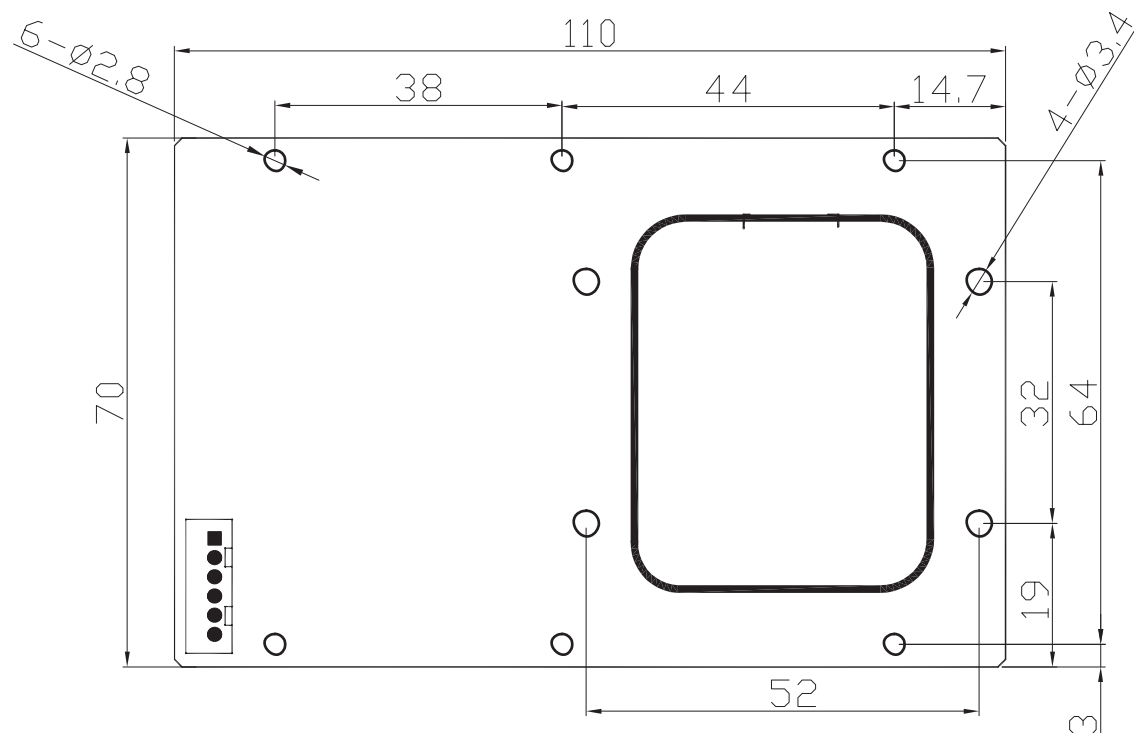
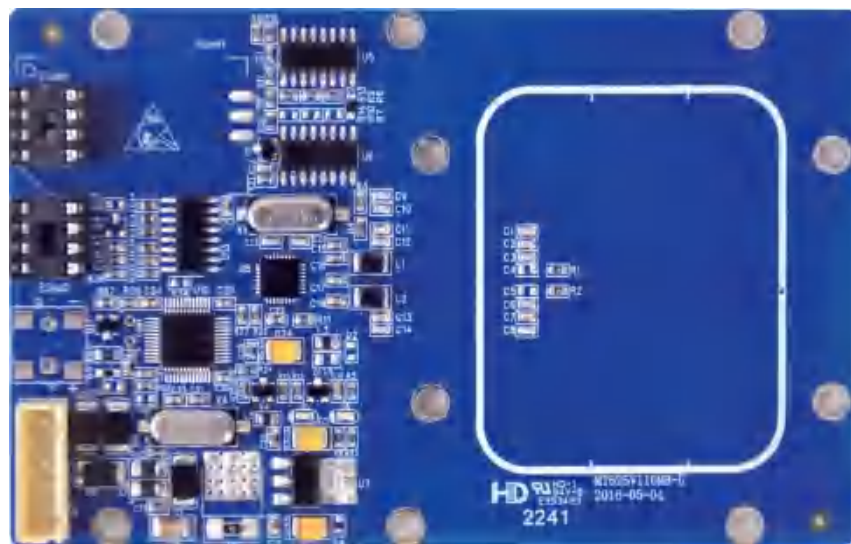
- 电动汽车充电桩、电动汽车充电站、电动大巴充电桩、电动大巴充电站、加油机、加气机
Electric Vehicle Charging Points/Piles & Stations, Fuel Dispensers, CNG Dispensers
- 自助终端机、支付系统、自动售货机、游戏机、停车场系统
Kiosk Terminals, Payment Systems, Vending Machines, Gaming Machines, Parking Systems

性能指标 | Specifications

支持卡类型 CARD TYPE		接触式IC卡 Contact IC Cards / 非接触式IC卡 Contactless IC Cards
IC卡 IC CARD	ISO/IEC 7816	读/写 R/W
	PSAM/ESAM	符合Level 1 Level 1 Compliant
	EMV	
非接触式卡 CONTACTLESS CARD	ISO14443 Type A & B & Mifare	读/写 R/W
使用寿命 LIFETIME		>50万次 >500,000 Cycles
锁卡与弹卡机构寿命 CARD LOCK & EJECT MECHANISM LIFETIME		>50万次 >500,000 Cycles
接口 INTERFACE		RS-232
工作电压 POWER SUPPLY		DC12V ± 5%
工作电流 CURRENT		静态 Static: ≤30mA / 最大 Max: ≤120mA
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约288g Approx 288g
备注 REMARK		带档门及多种卡嘴(可选) With shutter & multi bezel(optional)

MT625V11X

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & B)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持2个符合ISO7816标准的PSAM卡和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support 2 PSAM & ESAM cards (ISO7816),PSAM & ESAM (optional)
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS232串口升级
Support city cards of different areas, Firmware upgrade via RS-232
- 多种通信方式, 可根据客户需求定制
Various interface and customizable
- 天线尺寸精心设计, 符合大多数面板开孔设计
Carefully-designed antenna size for most installation design
- 多种安装尺寸设计, 温度适应性强
Various installation dimensions design. Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

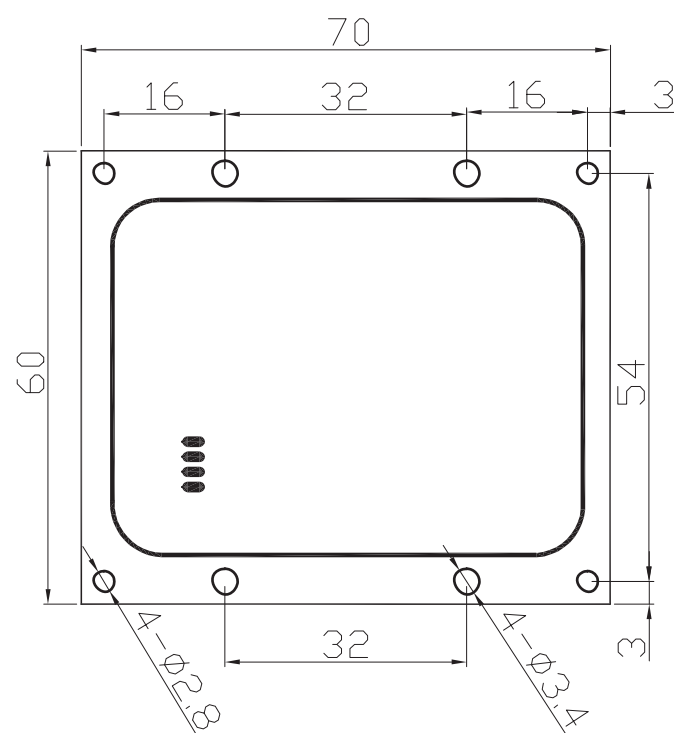
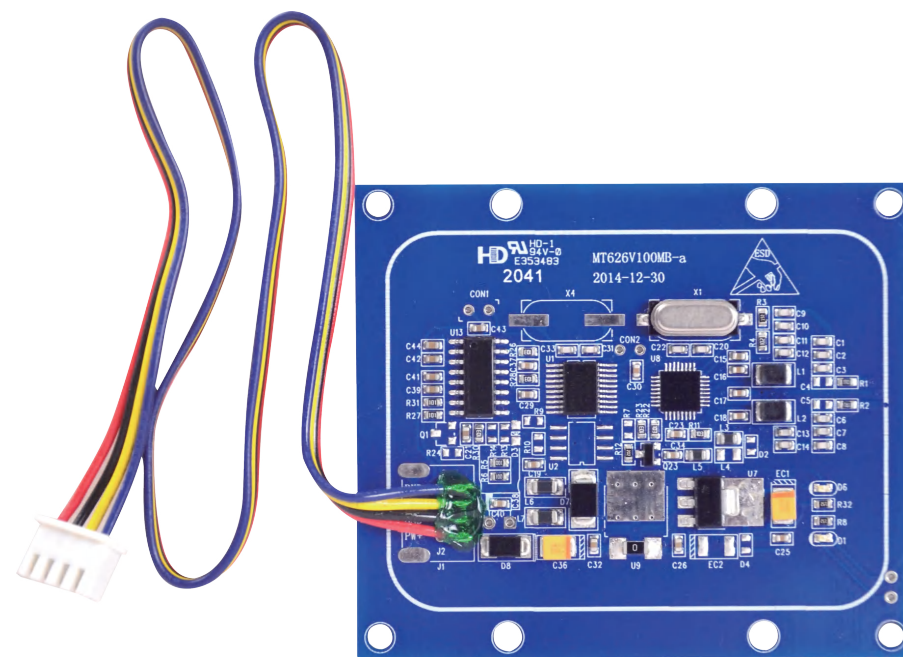
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选 Commands Optional)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态、蜂鸣器 LEDs indication & Buzzer
工作电压 POWER SUPPLY		DC5V or +12V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT625V110		○	○		○	○	
MT625V111	○			○	○○		
MT625V112		○	○		○○		
MT625V113	○		○		○○		
MT625V116		○	○		○○		○

MT626V10X

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 可支持各地区城市一卡通
Support city cards of different areas
- 多种通信方式, 可根据客户需求定制
Various interface and customizable
- 支持通过RS232串口升级
Firmware upgrade via RS-232
- 天线尺寸精心设计, 符合大多数面板开孔设计
Carefully-designed antenna size for most installation design
- 多种安装尺寸设计, 温度适应性强
Various installation dimensions design, Weatherproof
- 塑料外壳(符合IP54标准)可选
Optional IP54 plastic enclosure
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

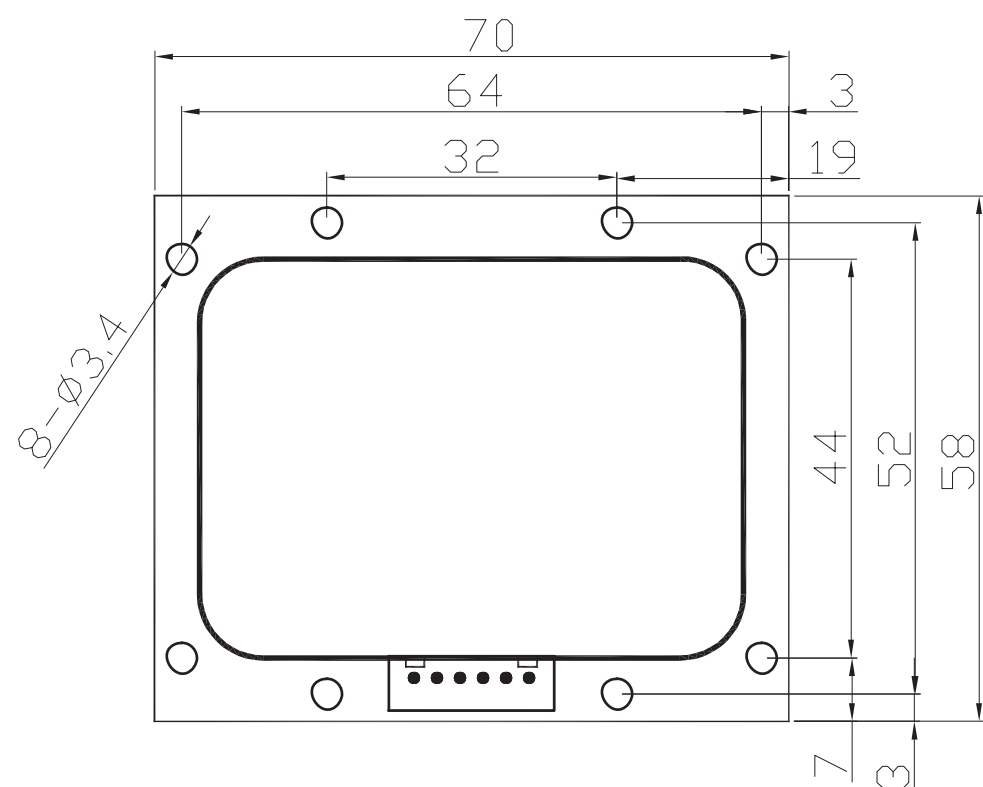
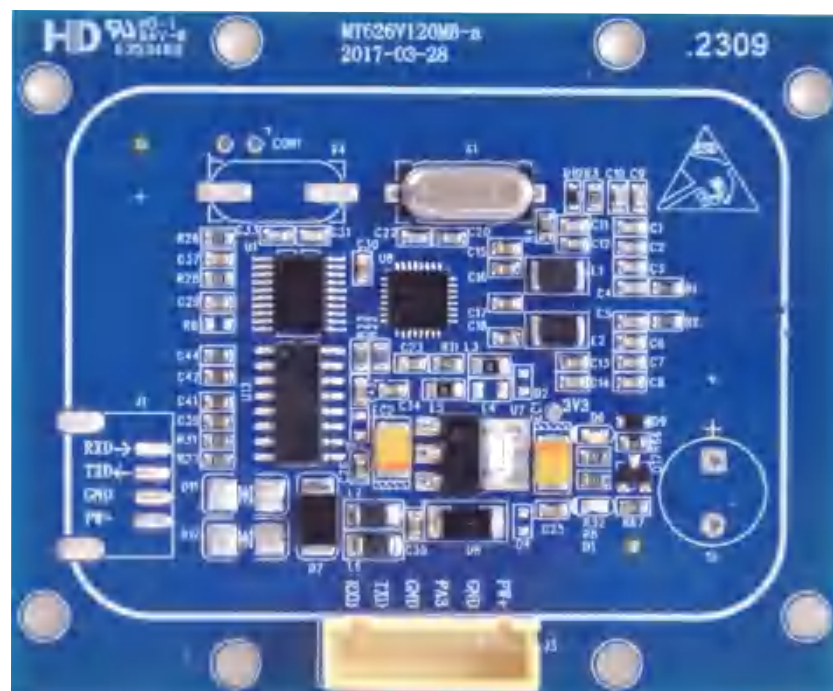
支持卡类型 CARD TYPE		非接触式IC卡/Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & Mifare	读/写 R/W
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
射频频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约15g Approx 15g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT626V100	○			○			
MT626V101	○		○				
MT626V102	○		○				

MT626V12X

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 可支持各地区城市一卡通
Support city card of different areas
- 多种通信方式, 可根据客户需求定制
Various interface and customizable
- 支持通过RS232串口升级
Firmware upgrade via RS-232
- 天线尺寸精心设计, 符合大多数面板开孔设计
Carefully-designed antenna size for most installation design
- 多种安装尺寸设计, 温度适应性强
Various installation dimensions design, Weatherproof
- 塑料外壳(符合IP54标准)可选
Optional IP54 plastic enclosure
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

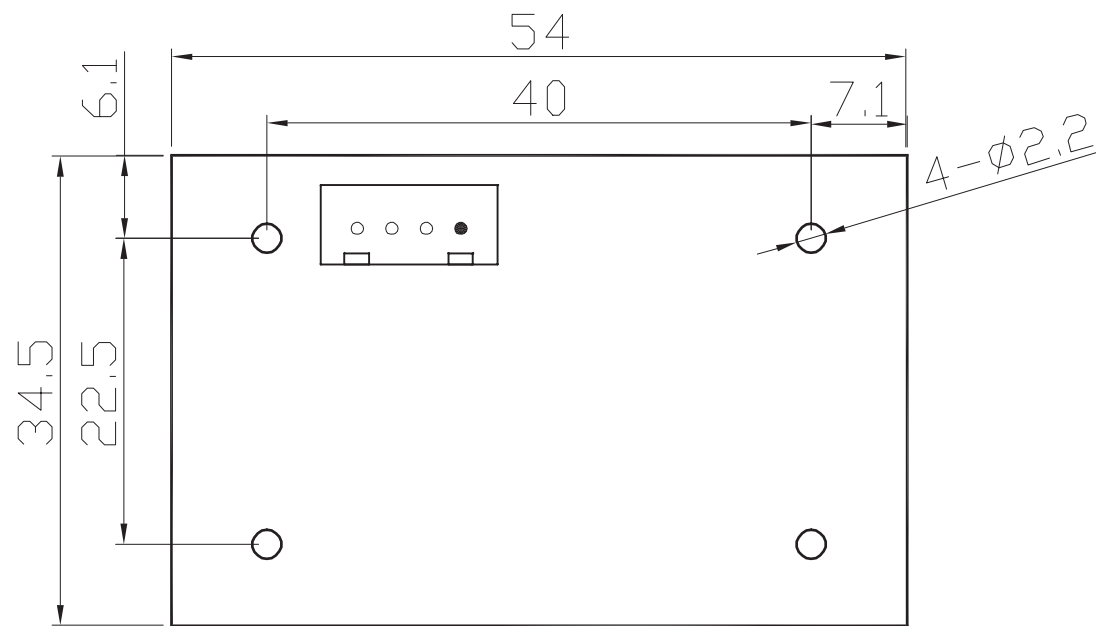
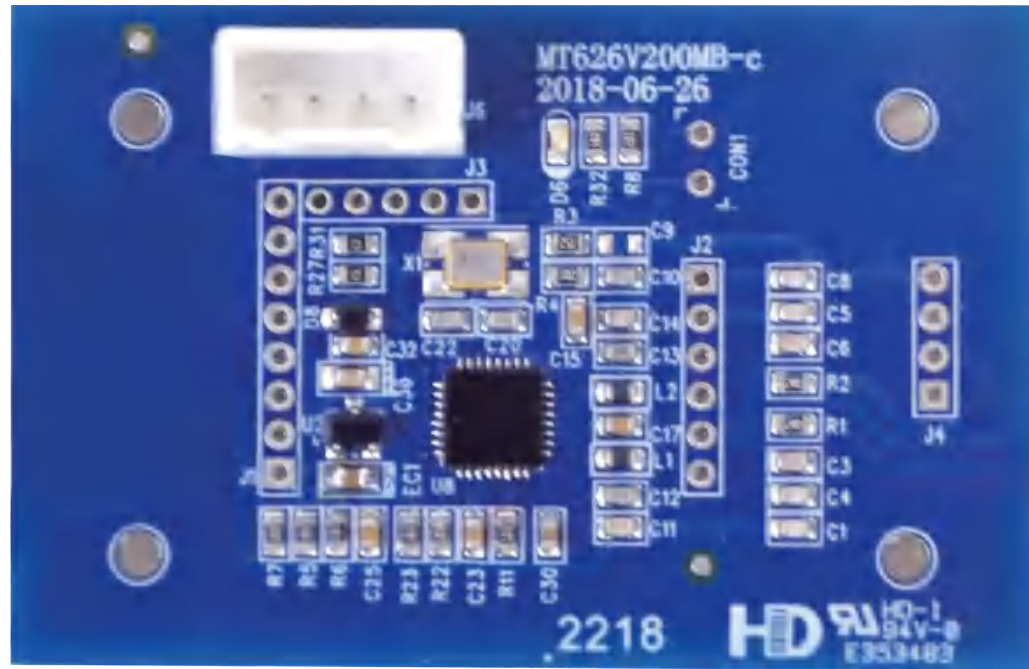
支持卡类型 CARD TYPE	非接触式IC卡/Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & Mifare
读卡距离 CARD READING DISTANCE	4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE	RS-232/TTL
波特率 BAUD RATE	9600/38400/57600/115200bps
天线 ANTENNA	PCB天线 PCB Antenna
射频频率 FREQUENCY	13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED	106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY	标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY	LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY	DC5V ± 5%
工作电流 CURRENT	静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE	-40~+65℃
重量 WEIGHT	约15g Approx 15g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT626V120	○			○			
MT626V121	○		○				
MT626V122	○		○				○

MT626V20X

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 and S70 (Mifare) card (ISO14443)
- 多种通讯方式, 可根据客户需求定制
Various interface and customizable
- 天线尺寸精心设计, 符合大多数面板开孔设计
Carefully-designed antenna size for most installation design
- 性价比高, 温度适应性强
High cost performance and Weatherproof
- 尺寸小巧, 适用交流充电桩
Exquisite size, suitable for AC charging point
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

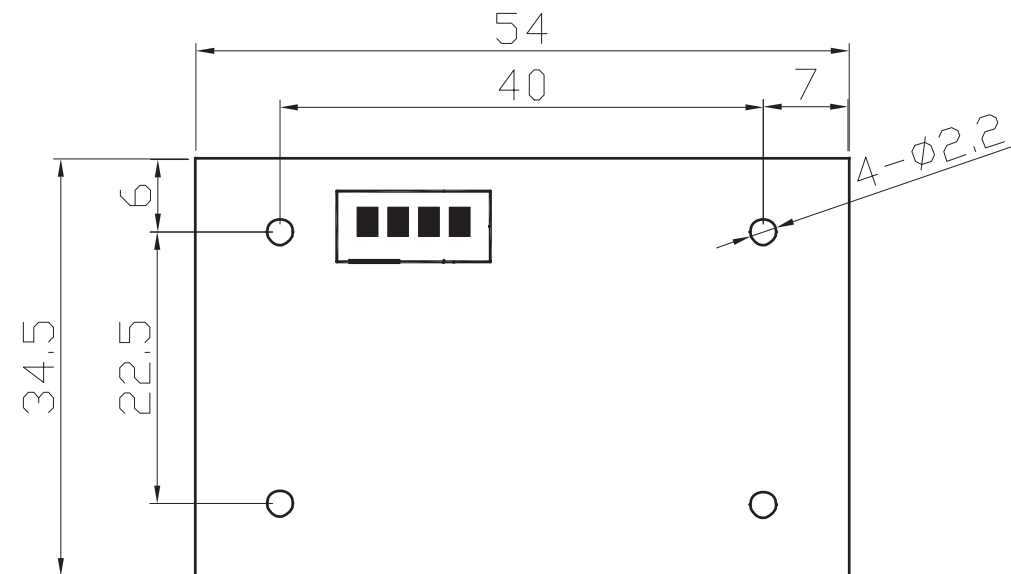
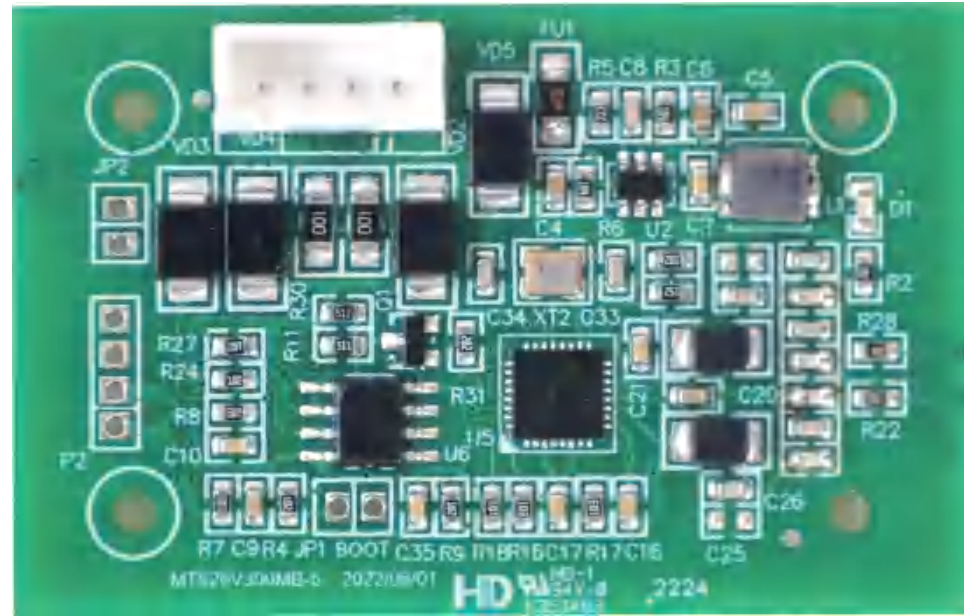
支持卡类型 CARD TYPE		非接触式IC卡/Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & Mifare	读/写 RW
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
射频频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65℃
重量 WEIGHT		约7g Approx 7g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT626V201	○			○			
MT626V202	○		○				

MT626V300

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 and S70 (Mifare) card (ISO14443)
- 多种通讯方式, 可根据客户需求定制
Various interface and customizable
- 默认RS485通讯
Default RS-485 communication
- 天线尺寸精心设计, 符合大多数面板开孔设计
Carefully-designed antenna size for most installation design
- 性价比高, 温度适应性高
High cost performance and Weatherproof
- 尺寸小巧, 适用交流充电桩
Exquisite size, suitable for AC charging point
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

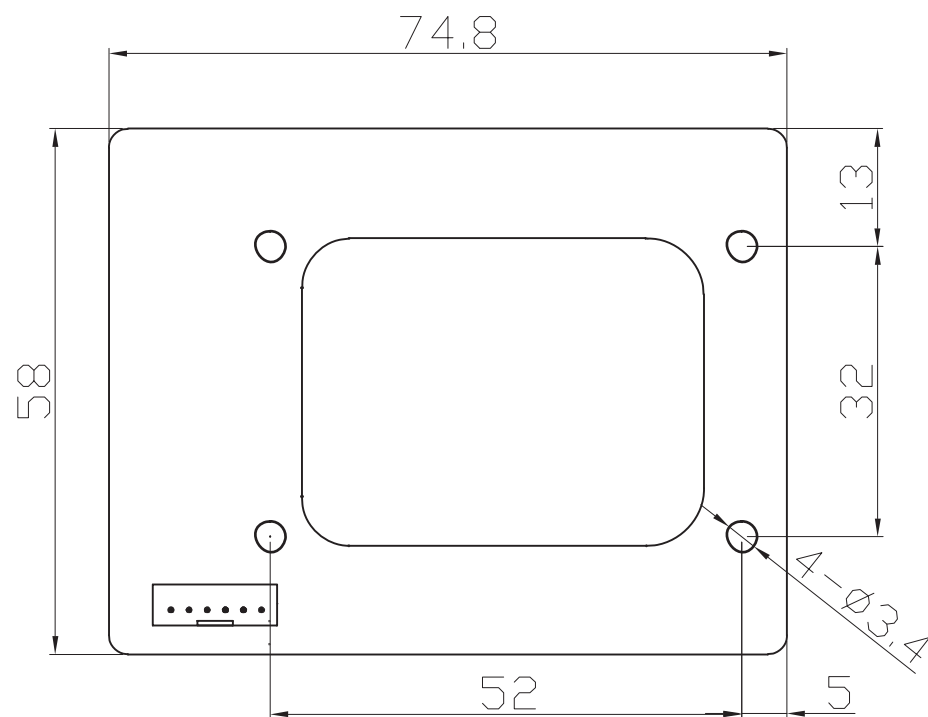
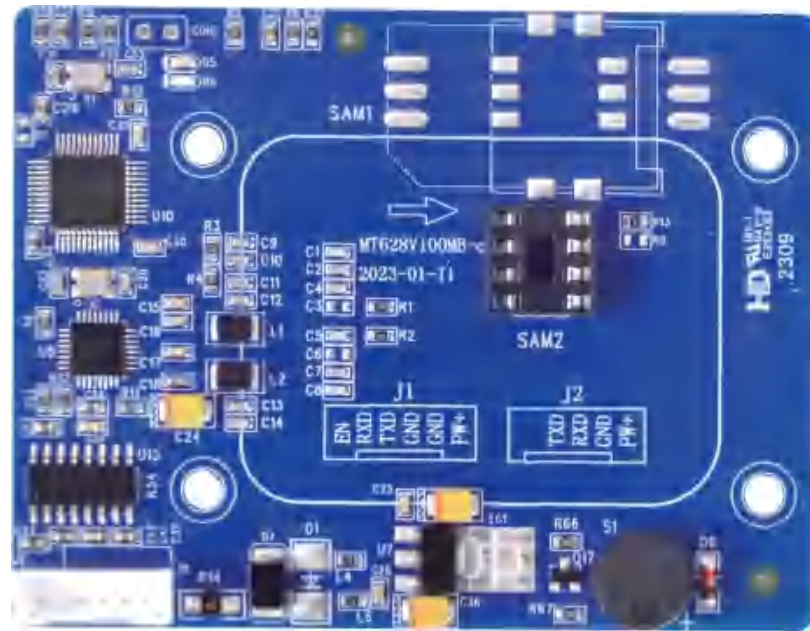
支持卡类型 CARD TYPE		非接触式IC卡/Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & Mifare	读/写 R/W
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS485
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
射频频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC12V ± 5%
工作电流 CURRENT		静态 Static: ≤30mA(12V)最大 Max: ≤150mA(12V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约7g Approx 7g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS485通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT626V300		○	○				

MT628V100

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 两个SIM卡槽(PSAM或ESAM)
Supplied with 2 SIM card slots (PSAM or ESAM)
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS232串口升级
Support city card of different areas, Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 天线尺寸精心设计
Carefully-designed antenna size
- 温度适应性强
Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

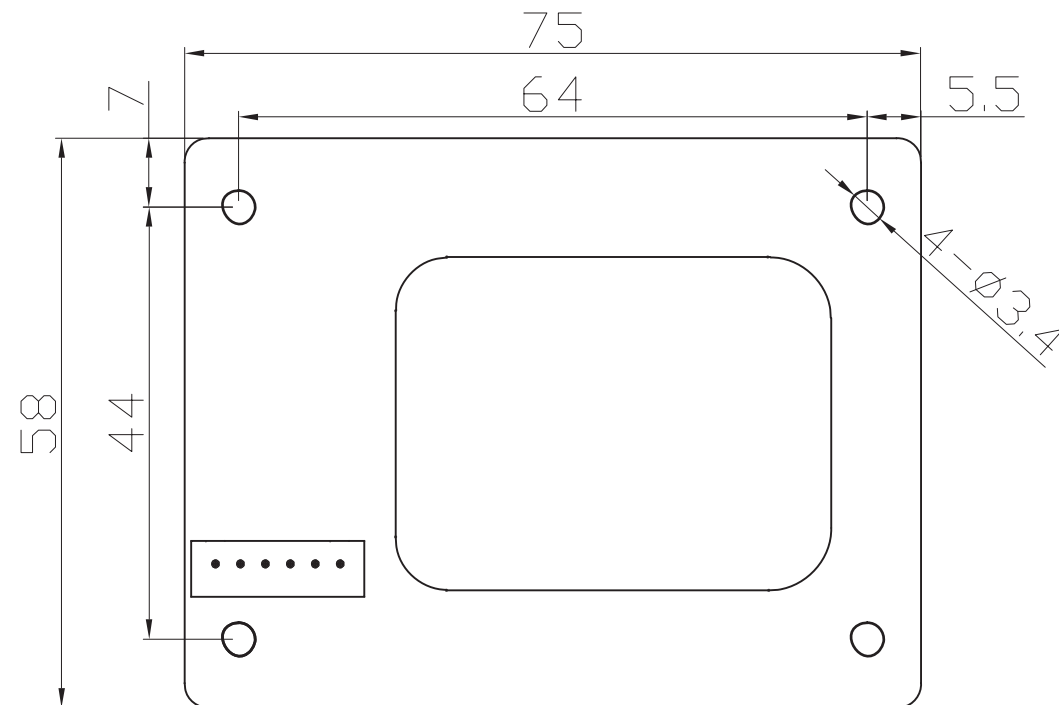
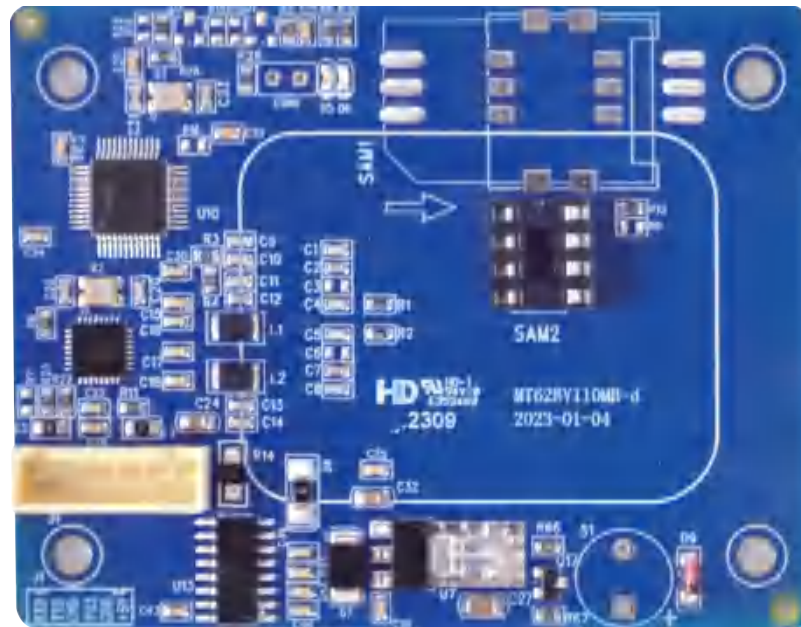
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约15g Approx 15g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V100	○		○		○		○

MT628V11X

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB 标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS232串口升级
Support city cards of different areas, Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 温度适应性强
Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

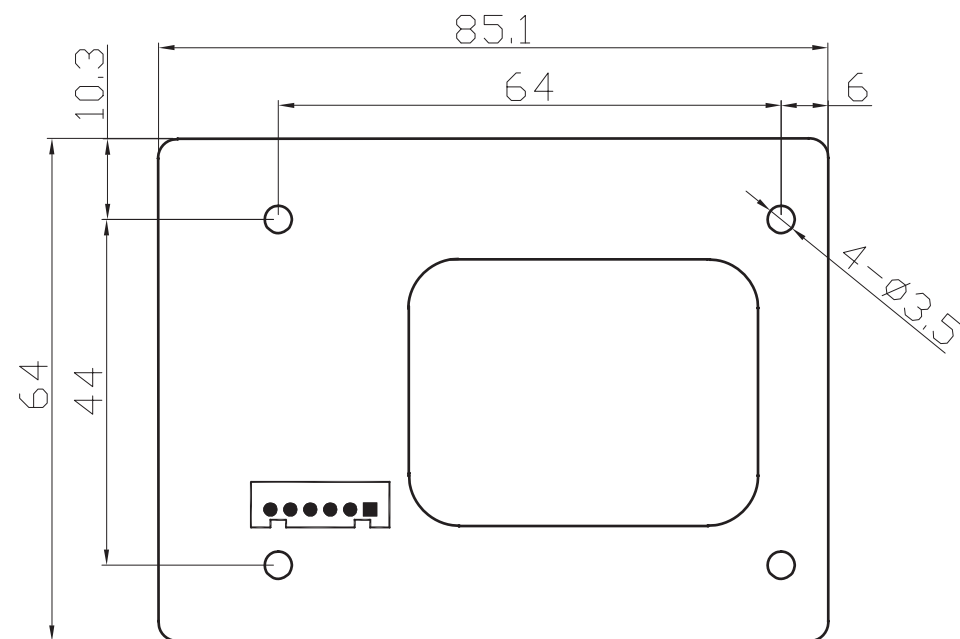
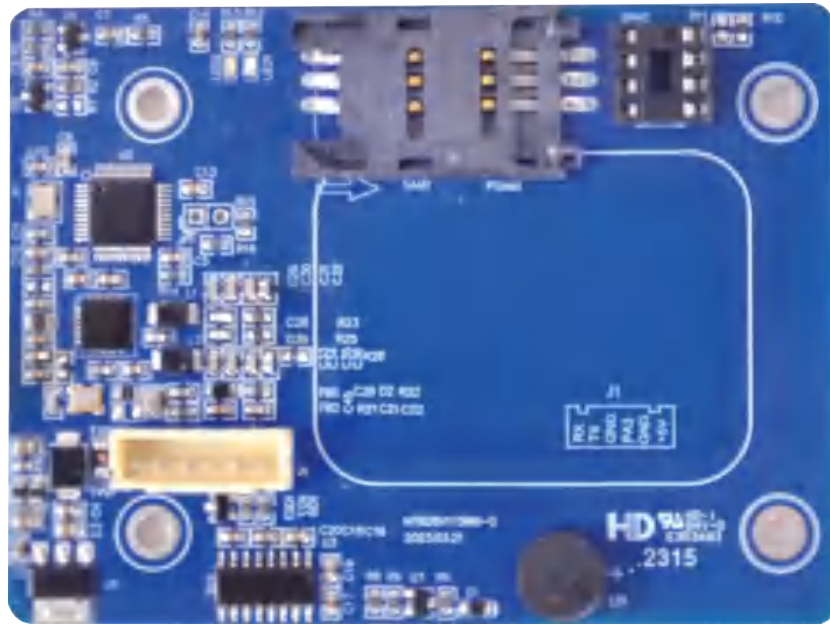
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V or DC12V ±5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约15g Approx 15g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V110	○	○	○		○		
MT628V111	○		○		○	○	
MT628V112	○		○		○		○
MT628V113	○			○	○		
MT628V114	○		○			○	○

MT628V115

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 and S70 (Mifare) card (ISO14443)
- 支持符合ISO15693标准的非接触式IC卡的操作
Support contactless IC card (ISO15693)
- 支持NFC读卡器模式
Support card reading in NFC mode
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据行业应用或金融应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持RS232串口升级
Support city card of different areas, Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
The communication interface is compatible with State grid standards, various interface and customizable
- 天线尺寸精心设计, 温度适应性强
Carefully-designed antenna size for most installation design

性能指标 | Specifications

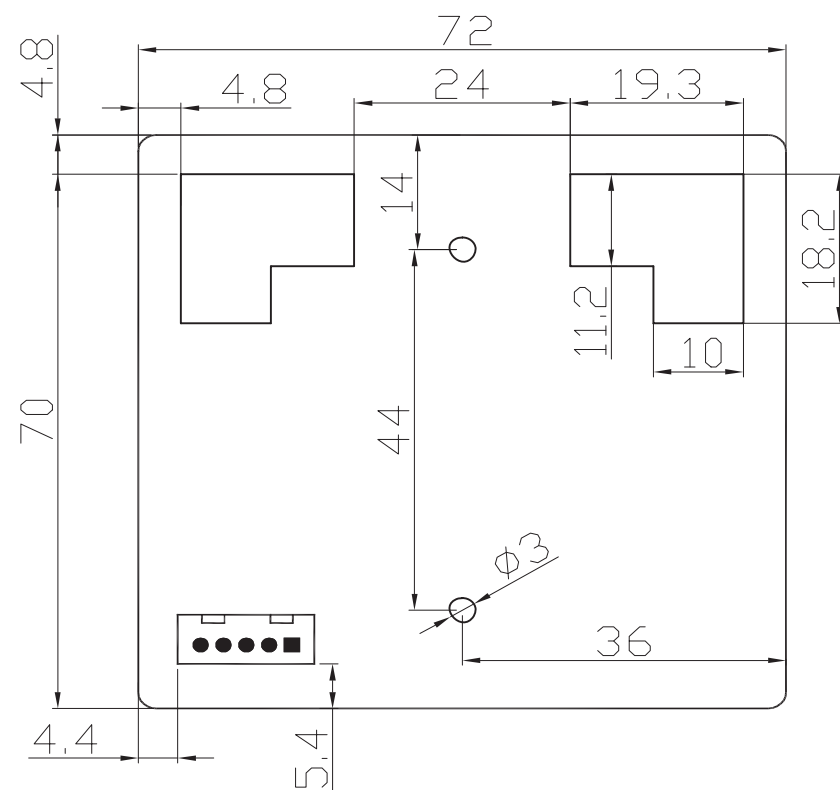
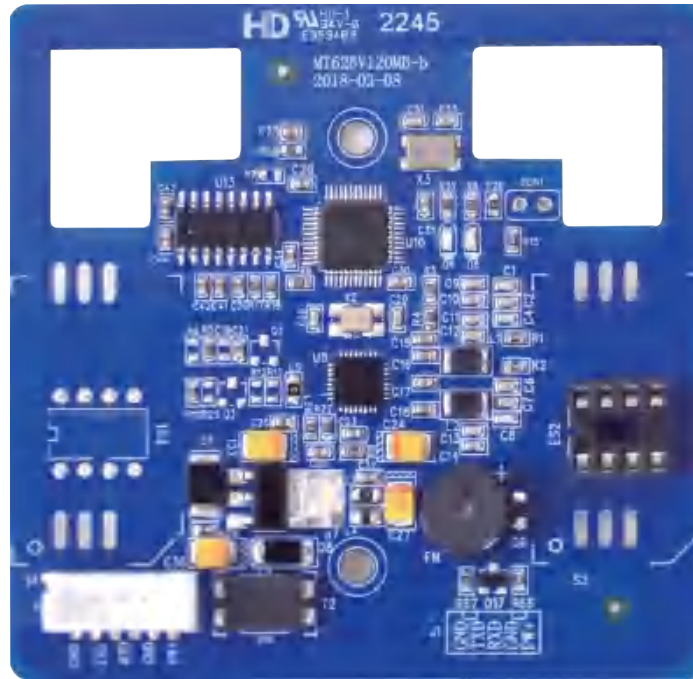
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤180mA(5V)
工作温度 WORKING TEMPERATURE		-40~+80℃
重量 WEIGHT		约22g Approx 22g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V115	○		○		○	○	○

MT628V120

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB 标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 两个SIM卡槽(PSAM或ESAM)
Supplied with 2 SIM card slots (PSAM or ESAM)
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with China Southern Power Grid or State Grid application flow for charging points
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS232串口升级
Support city cards of different areas, Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 天线尺寸精心设计
Carefully-designed antenna size
- 温度适应性强
Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

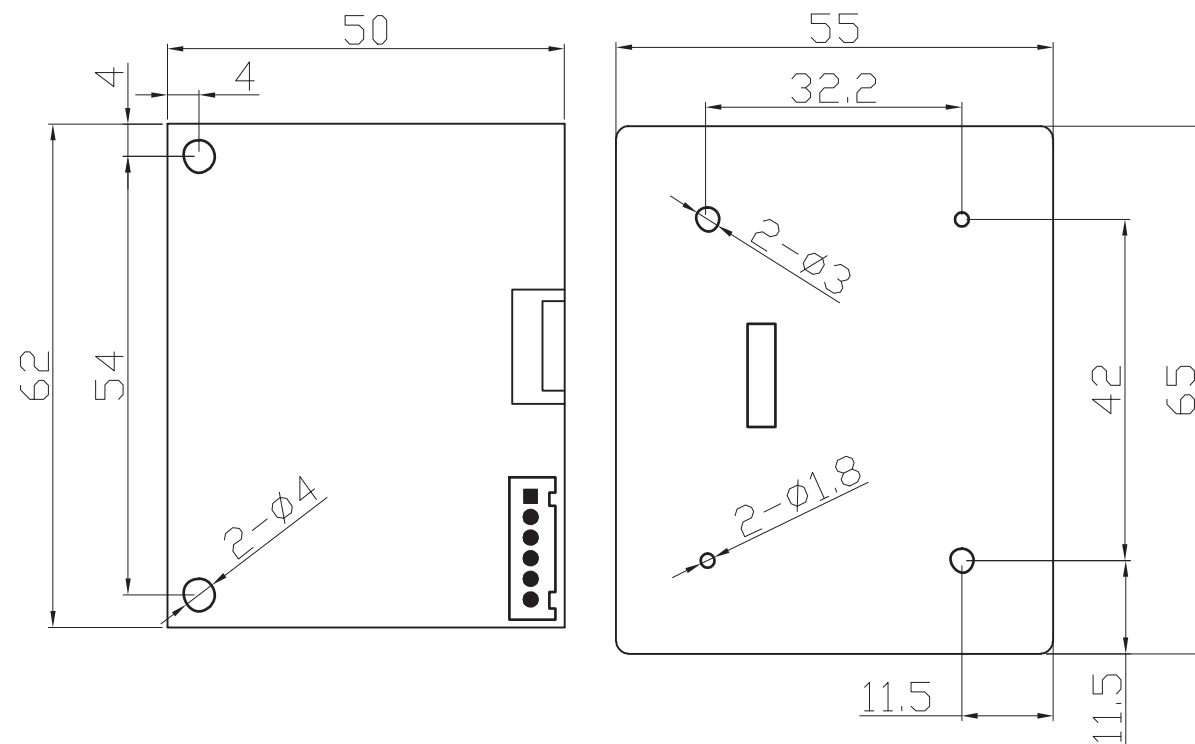
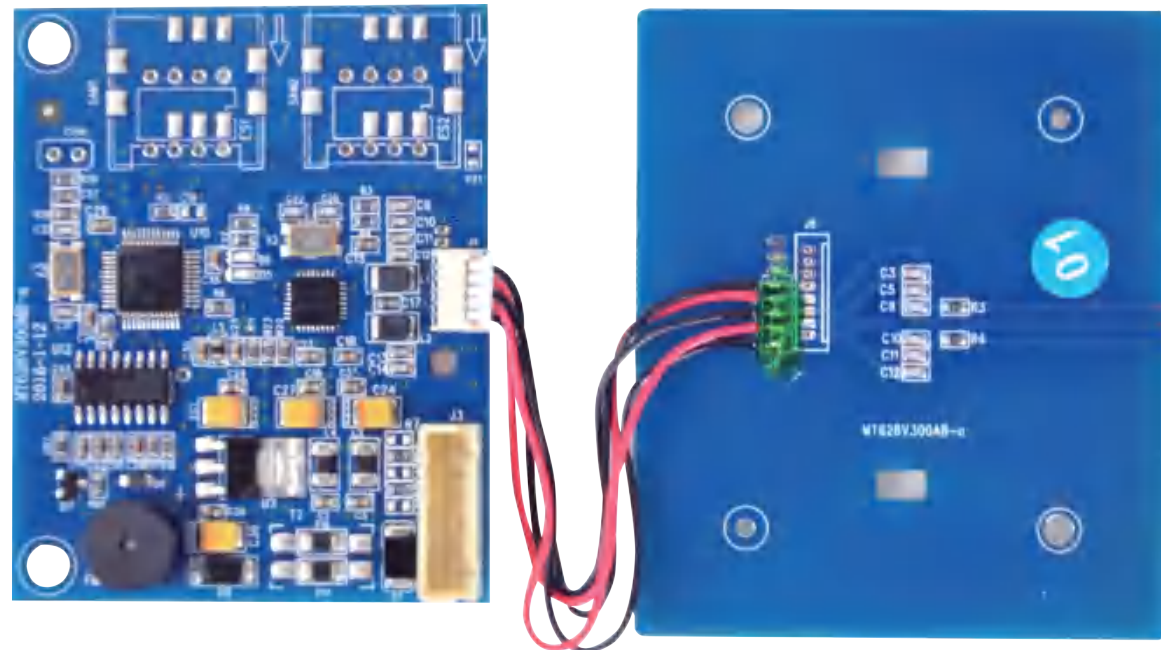
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤160mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约19g Approx 19g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V120	○		○		○		○

MT628V150

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB 标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 两个SIM卡槽(PSAM或ESAM)
Supplied with 2 SIM card slots (PSAM or ESAM)
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS232串口升级
Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 天线尺寸精心设计
Carefully-designed antenna size
- 温度适应性强
Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

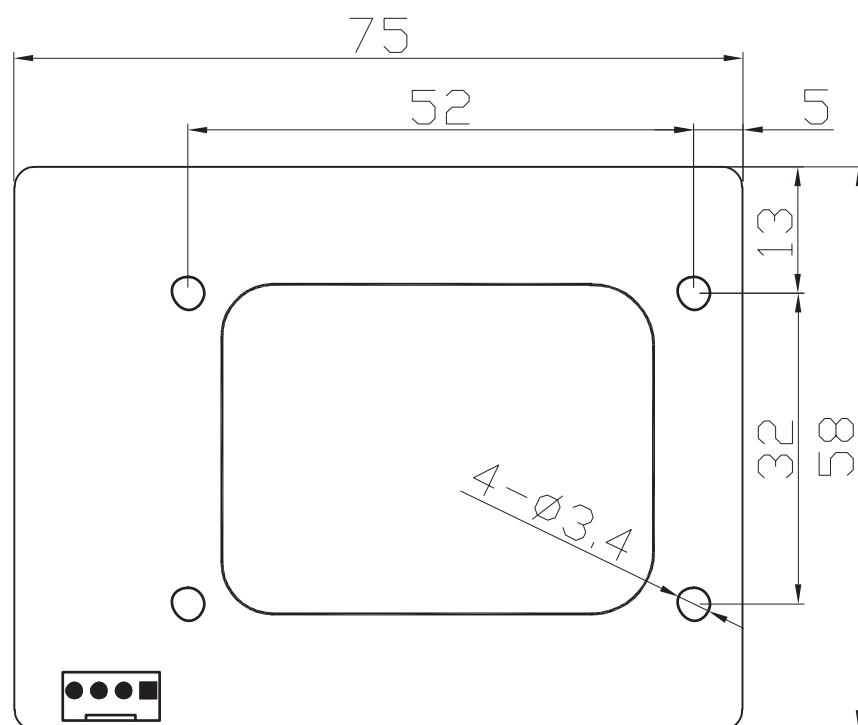
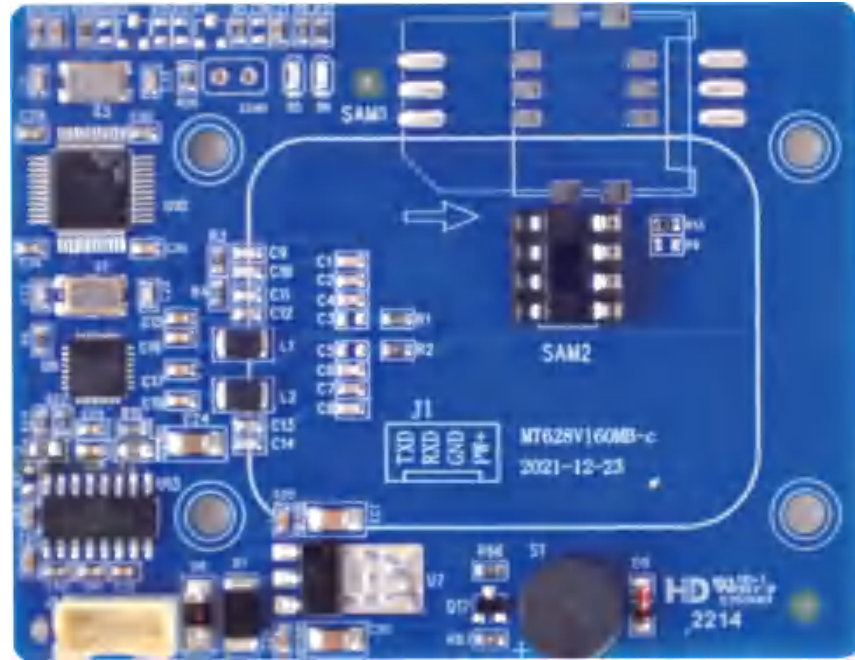
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
射频频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤150mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约25g Approx 25g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V150	○		○				○

MT628V160

非接触式读卡器 | Contactless Card Readers



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB 标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70(Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM和ESAM卡的操作(PSAM和ESAM接口用户可选)
Support PSAM & ESAM card (ISO7816), optional PSAM and ESAM
- 两个SIM卡槽(PSAM或ESAM)
Supplied with 2 SIM card slots (PSAM or ESAM)
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据充电行业应用或金融行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持各地区城市一卡通, 支持通过RS-232串口升级
Support city cards of different areas, Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 天线尺寸精心设计
Carefully-designed antenna size
- 温度适应性强
Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

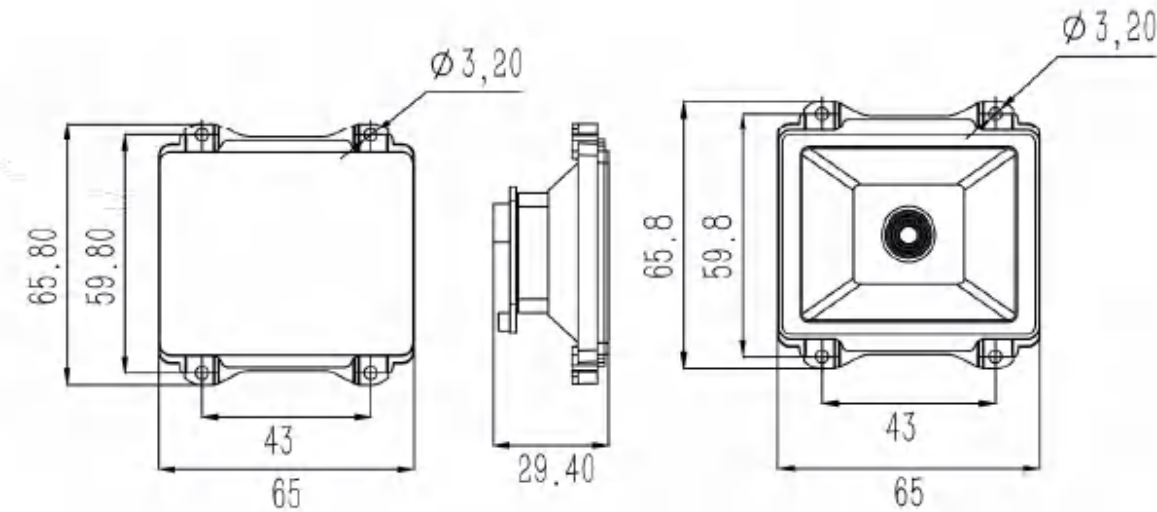
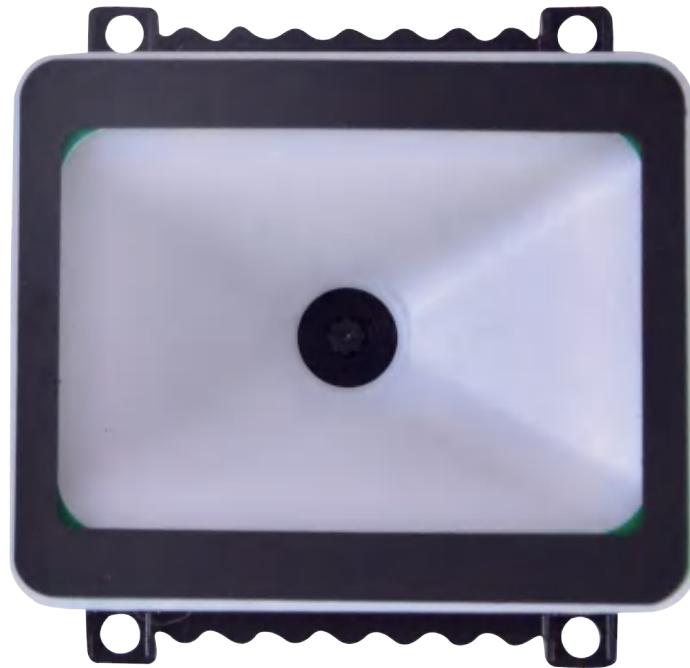
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards SIM, PSAM, ESAM Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B & Mifare	读/写 R/W
IC卡 IC CARD	SIM/PSAM/ESAM	读/写 R/W
	EMV	符合Level/Level 1 Compliant
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
天线 ANTENNA		PCB天线 PCB Antenna
工作频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
存储数据容量 STORAGE DATA CAPACITY		标准配置为4K字节 4K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LEDs indication
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V)/最大 Max: ≤130mA(5V)
工作温度 WORKING TEMPERATURE		-40~+65°C
重量 WEIGHT		约15g Approx 15g

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT628V160	○		○		○		○

MT321

扫码器 | Barcode scanner



产品特点 | Features

- 支持符合ISO14443 TypeA和TypeB标准的非接触式IC卡的操作
Support contactless IC card (ISO14443 TypeA & TypeB)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 and S70 (Mifare) card (ISO14443)
- 支持ID卡
Support ID card
- 具备扫码功能, 响应迅捷、高稳定性的条形码和二维码识读
With scanning function, quick response and high stability for 1D and 2D barcode reading
- 具备待机、充电、故障三种状态的LED指示灯, 指示灯效果符合人机交互界面
With Standby, Charging, Fault three states of LED indicators
- 识读各类主流一维条码和主流二维码
Support a variety of 1D and 2D barcodes
- 可根据用户需求兼容南方电网充电桩或国家电网充电桩应用流程
Customized for compatibility with application flow of charging points from China Southern Power Grid or State Grid
- 根据行业应用, 支持内部封装, 降低二次开发难度
Customized for charging or financial applications, easy and cost-effective for secondary development
- 可支持RS232串口升级
Firmware upgrade via RS-232
- 通讯接口兼容国网标准, 多种通信方式, 可根据客户需求定制
Communication interface compatible with China State Grid standard, various interface and customizable
- 天线尺寸精心设计, 温度适应性高
Carefully-designed antenna, Weatherproof
- 支持NFC模式下刷卡
Support card reading in NFC mode

性能指标 | Specifications

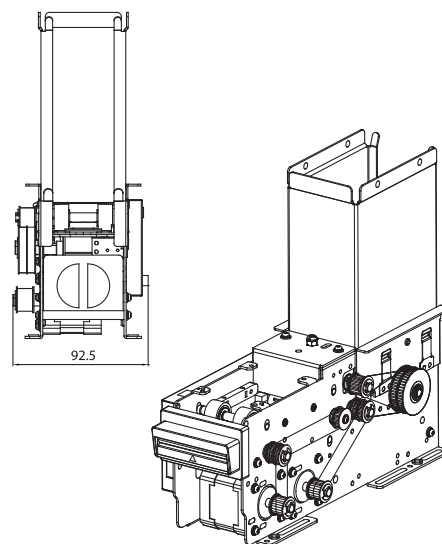
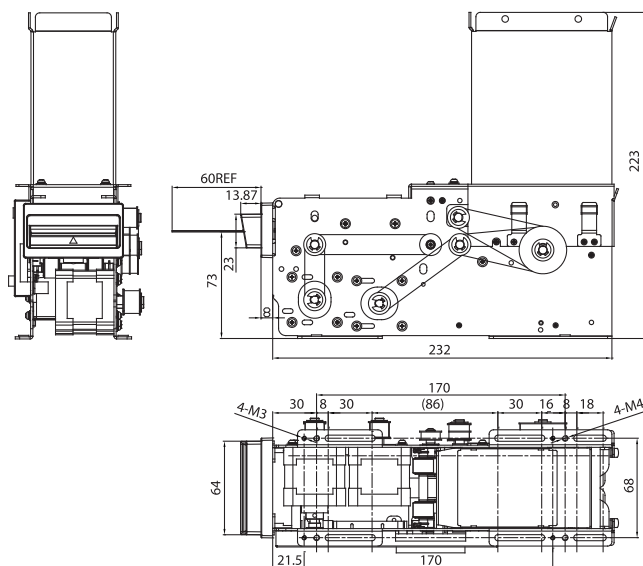
支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 TypeA & B Mifare	读/写 RW
读卡距离 CARD READING DISTANCE		4-8厘米 (与卡有关) 4-8cm(Related to cards)
接口 INTERFACE		RS-232/TTL
波特率 BAUD RATE		9600/38400/57600/115200bps
射频频率 FREQUENCY		13.56MHz
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit (212Kbit&424Kbit pps命令可选) Commands Optional
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤85mA(5V)/最大 Max: ≤350mA(5V)
工作温度 WORKING TEMPERATURE		-25~+65°C
1D识读码制 1D barcode decode capability		Code39、UPC/EAN、Code-Bar、MSI、Code11、Code93、ISBN、ISSN、Code128、MSI Pressey、interleaved2 of 5、Industrial 2 of 5
2D识读码制 2D barcode decode capability		PDF417、QR Code、DataMatrix
识读精度 Reading accuracy		≥5mil
识读距离 Reading distance		距离镜面 Distance from mirror ≤15cm
响应时间 Response time		≤500ms(单次最慢/ Single slowest shot)

产品型号表 | Product Model

产品型号Model	DC5V	DC12V	RS232通讯	TTL通讯	ESAM	PSAM	蜂鸣器Buzzer
MT321V100	○		○		○		○

MT166(RF)

嵌入式发卡系统 | Embedded Card Issuing Systems



产品特点 | Features

- **结构紧凑、安全性高、稳定性好**
Compact, high reliability and durability
- **支持符合ISO14443 Type A和Type B标准的非接IC卡读写(可选)**
Support contactless IC card (ISO14443 TYPE A & B)-optional
- **支持符合ISO14443标准的S50和S70(Mifare)卡的操作(可选)**
Support S50 & S70 (Mifare) card (ISO14443)-optional
- **可根据客户需求定制, 采用2个步进电机传动**
Customized, with 2 stepper motors
- **前端常闭门设计, 有效防尘和雨水**
Designed with shutter, dust and water proof
- **卡片厚度/发卡速度可调节**
Adjustable card thickness & dispensing speed
- **储卡箱(可扩展)装载量 180 pcs/(卡厚: 0.8mm)**
Extension stackable cards hopper capacity: 180pcs (card thickness: 0.8mm)
- **错误卡回收功能, 卡少提醒功能**
With error card recycling and card-low indication
- **配多型号插卡口**
With multi bezel (optional)
- **多种通信方式, 可根据客户需求定制**
Various interface and custom design

应用 | Applications

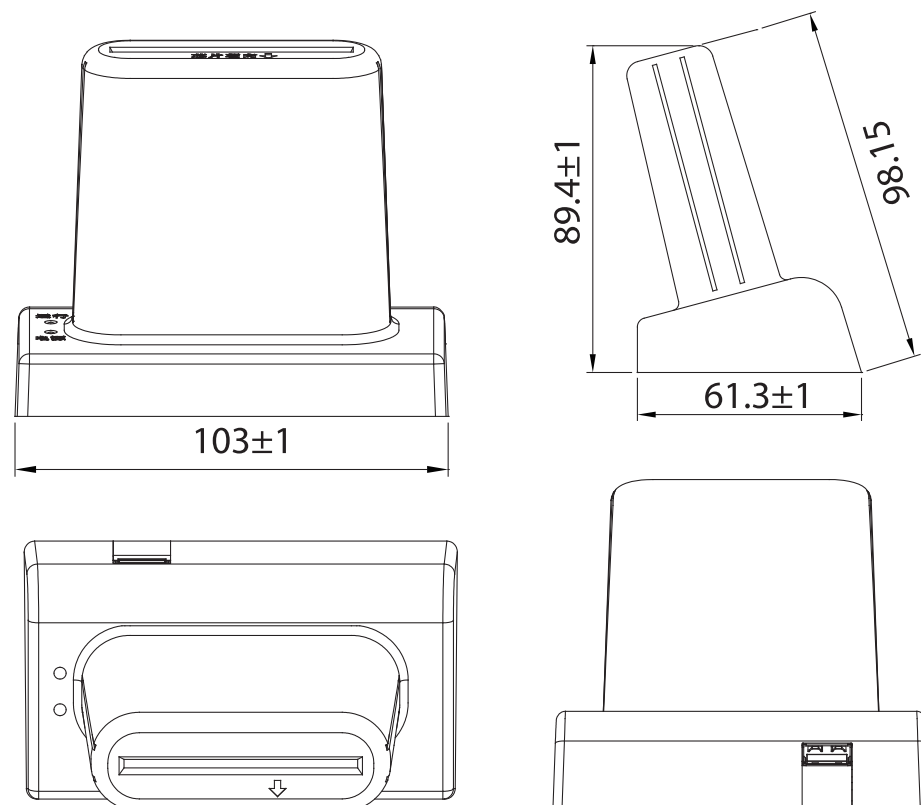
- **电动汽车充电桩、电动汽车充电站、电动大巴充电桩、电动大巴充电站**
Electric Vehicle Charging Points/Piles & Stations
- **ATM机、自助存取款机、自助终端机、支付系统、自动售货机、游戏机、停车场系统**
ATMs, CDMs, Kiosk Terminals, Payment Systems, Vending Machines, Gaming Machines, Parking Systems
- **安防与门禁终端**
Security and Access Control Terminals

性能指标 | Specifications

支持卡类型 CARD TYPE		非接触式IC卡 Contactless IC Cards
非接触式卡 CONTACTLESS CARD	ISO14443 Type A & B & Mifare	读/写 R/W
卡片规格 CARD SPECIFICATIONS		尺寸 Size: 54x86mm 厚度 Thickness: 0.3-2.0mm
发卡速率 CARD DISPENSING SPEED		>1张/秒 >1pcs/s
回收箱容量 CARD RECYCLING HOPPER CAPACITY		>25张 >25pcs
卡箱容量 CARD HOPPER CAPACITY		180张 180pcs
使用寿命 LIFETIME		>200万次 >2,000,000 Cycles
卡与机具通讯速度 COMMUNICATION SPEED		106Kbit(212Kbit & 424Kbit pps命令可选 Commands Optional)
接口 INTERFACE		RS232/I/O/TTL
工作电压 POWER SUPPLY		DC24V ± 5%
工作电流 CURRENT		最大电流 Max Current: ≤2A(24V)
工作温度 WORKING TEMPERATURE		-25~+60℃
重量 WEIGHT		约2120g Approx 2120g
备注 REMARK		带档门及多种卡嘴(可选) With shutter & multi bezel(optional)

MT219

通用发卡系统 | Standalone Card Issuing Systems



产品特点 | Features

- 外形美观大方、安全性高、稳定性好
Elegant, high reliability and durability
- 立式设计，便于单手在营业网点或柜台发卡、充值、查询使用
Standalone design, easy for card dispensing, recharging and query
- 支持符合ISO7816标准的接触式IC卡的操作
Support contact IC card (ISO7816)
- 支持符合ISO14443 Type A和Type B标准的非接IC卡的操作
Support contactless IC card (ISO14443 TYPE A & B)
- 支持符合ISO14443标准的S50和S70(Mifare)卡的操作
Support S50 & S70 (Mifare) card (ISO14443)
- 支持符合ISO7816标准的PSAM卡的操作
Support PSAM card (ISO7816)
- 一个SAM卡槽
Supplied with 1 SAM card slot
- 非接触式IC卡既可插入卡机内操作，也可放到外部操作
Contactless IC card operation by insertion or near field
- 配套ESAM转接板可发行ESAM安全认证模块
With adapter for ESAM issuing

应用 | Applications

- 电动汽车充电桩、电动汽车充电站、电动大巴充电桩、电动大巴充电站
Electric Vehicle Charging Points/Piles & Stations
- 自助终端机、身份认证终端、信用授权终端
Kiosk Terminals, ID Terminals, Credit Authorization Terminals

性能指标 | Specifications

支持卡类型 CARD TYPE		接触式IC卡 Contact IC Cards 非接触式IC卡 Contactless IC Cards
IC卡 IC CARD	SIM/PSAM/ESAM ISO/IEC 7816 T=0/1	读/写 R/W
	EMV	符合Level 1 Level 1 Compliant
非接触式卡 CONTACTLESS CARD	ISO14443 Type A & B & Mifare	读/写 R/W
读卡距离 CARD READING DISTANCE		≤6厘米(与卡有关) ≤6cm(Related to cards)
接口 INTERFACE		RS-232 / TTL / USB
波特率 BAUD RATE		9600bps
天线 ANTENNA		内置天线 Internal Antenna
外壳材料 ENCLOSURE MATERIAL		塑料外壳 ABS Plastic
工作频率 FREQUENCY		13.56MHz
二次开发 SECONDARY DEVELOPMENT		支持多种开发语言 Support multi language
操作系统 OPERATING SYSTEM		Windows 98, Me, 2K, XP, 2003, Vista and Linux
存储数据容量 STORAGE DATA CAPACITY		标准配置为2K字节 2K Bytes(Standard)
状态显示 STATUS DISPLAY		LED灯指示电源或通讯状态 LED Indication Light
工作电压 POWER SUPPLY		DC5V ± 5%
工作电流 CURRENT		静态 Static: ≤25mA(5V) / 最大 Max: ≤120mA(5V)
工作温度 WORKING TEMPERATURE		-20~+60°C
重量 WEIGHT		约145g Approx 145g

配合铭特发卡器提供发卡系统

card issuing system services based on Mingte's products

定制服务 | Provide customized

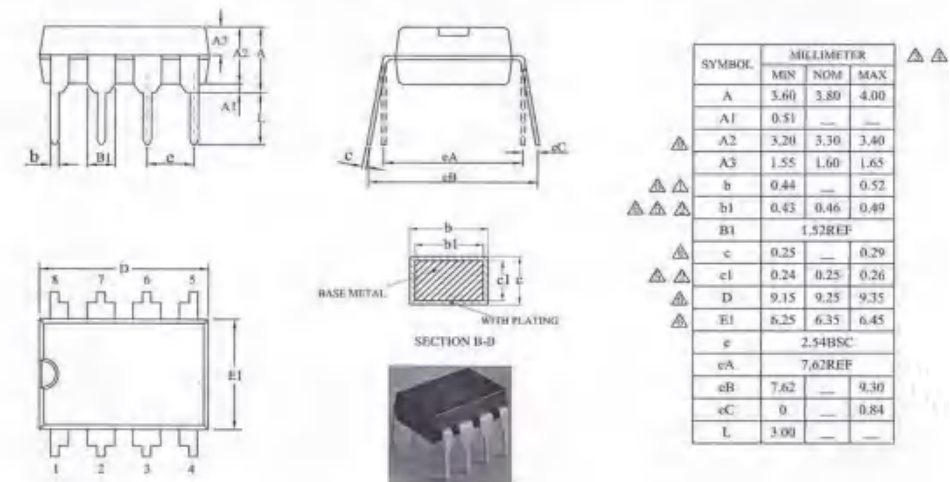
- **用户卡 (CPU卡、M1卡)、ESAM卡、ISAM卡初始化发行**
Initial issuance of user card(CPU card, M1 card), ESAM card and ISAM card
- **用户卡的充值、联机解锁**
Recharge user card and gray unlock
- **用户卡充值发卡记录查询、删除、导出**
Query, delete, and export user card charging and issuing records
- **可提供单机或联网版本, 提供接口方便柜后台统计数据**
Provide stand-alone version or internet version, and provide interface for background statistics data
- **适用于充电站卡片的管理**
Applicable to the management of charging point user cards
- **其他卡片相关的定制服务**
Other card related customization services



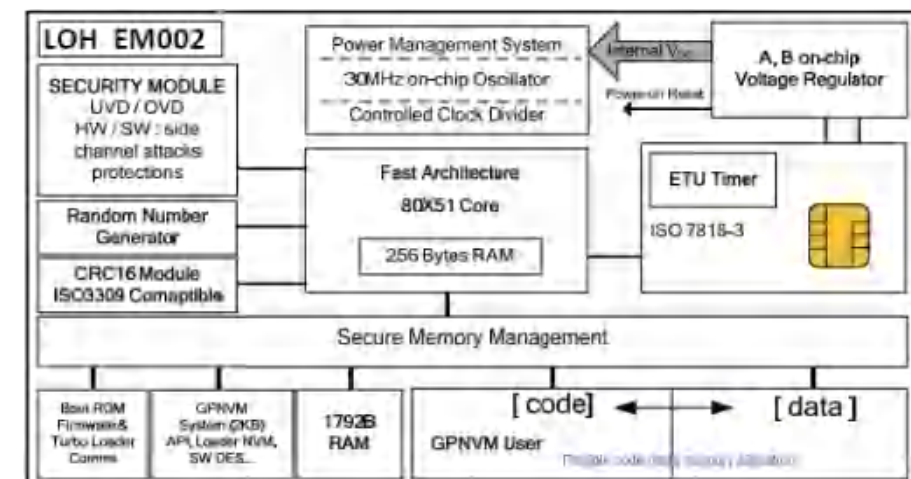
安全认证模块 | ESAM & ISAM



安全认证模块 | ESAM



安全认证模块 | ISAM



产品特点 | Features

- 专门为汽车充电桩市场研发，内置于充电桩读卡器中，为电动汽车充电桩系统提供内置的安全功能，完成充电桩与IC卡的双向认证工作
Specially developed and card readers built-in design for electric vehicle charging points, provides built-in security features for two-way authentication between electric vehicle charging point systems and cards
- 安全的实现充电桩的认证与计价扣费功能
Secure authentication and valuation & payment functions for charging points
- 符合ISO7816标准规范，符合相关行业标准
Comply with ISO7816 and relevant industry standards
- 可以根据用户特殊需求，删除、增加或修改某些特定功能并可定制新功能
Enable to delete, add or modify certain features for customization
- 总线加密，具有主动屏蔽层，探测到外部攻击后内部数据自毁
Encrypted bus, with active shield, temper-proof
- 真随机数发生器：利用芯片内部的电磁白噪声产生，不会重复
True random number generator: generated by electromagnetic white-noise inside chip, no repeat

应用 | Applications

- 电动汽车充电桩、电动汽车充电站、电动大巴充电桩、电动大巴充电站
Electric Vehicle Charging Points/Piles & Stations

性能指标 | Specifications

支持文件类型 FILE TYPE	支持包括二进制、定长记录、变长记录、循环记录、钱包记录等多种文件类型 Support binary system, fixed-length record, variable-length record, circulated record, wallet record and other type files
支持通讯协议 COMMUNICATION PROTOCOL	T=0(字符传输) T=0(Character Transmission)
支持算法 ALGORITHM	DES, 3DES, DES-MAC, SM1 可以根据密钥长度自动选择算法 Automatic algorithm selection according to key length
EEPROM容量 CAPACITY	1-60k
8字节数据三重DES运算时间 OPERATION TIME OF 3DES 8 BYTES DATA	35ms / 0.2ms
文件和密钥操作通信线路保护 PROTECTION OF FILE & KEY OPERATION COMMUNICATION CIRCUITS	明文、加密及MAC三种方式 Clear, encrypted and MAC
通讯速率 COMMUNICATION RATE	默认 Default: 9.6kbps 可选 Options: 19.2kbps, 38.4kbps & 76.8kbps
建设部密钥管理系统 MOC KEY MANAGEMENT SYSTEM	支持 Support
数据保持时间 DATA RETAINING TIME	大于10年 >10 Years
EEPROM擦写次数 EEPROM WIPING TIME	大于50万次 >500,000 Times
工作电压 POWER SUPPLY	DC2.7-5V ± 5%
工作电流 CURRENT	最大电流 Max Current: 100uA
工作温度 WORKING TEMPERATURE	-40~+65°C
时钟频率 CLOCK FREQUENCY	1-5MHz, 默认值为 3.57MHz(9.6kbps波特率) 1-5MHz Default: 3.57MHz(Baud Rate: 9.6kbps)
休眠电源模式 POWER SLEEP MODE	支持 Support
封装规格 PACKAGING SPECIFICATIONS	提供多种封装, DIP8双列直插, SOP贴片, Plug-in 规格SAM卡 Various packaging, DIP8(dual in-line), SOP, Plug-in SAM Card

充电桩用户卡 User Cards for Charging Points



产品特点 | Features

- 专门为汽车充电桩市场研发，配套铭特科技ESAM使用，作为用户为电动汽车充电的凭证，安全的实现用户刷卡充电
Specially developed for electric vehicle charging points and worked with MINGTE ESAM cards, as charging evidence for secure cards payment.
- 符合ISO14443标准规范，符合相关行业标准
Comply with ISO14443 and relevant industry standards
- 可以根据用户特殊需求，删除、增加或修改某些特定功能并可定制新功能
Enable to delete, add or modify certain features for customization
- 总线加密，具有主动屏蔽层，探测到外部攻击后内部数据自毁
Encrypted bus, with active shield, temper-proof
- 真随机数发生器：利用芯片内部的电磁白噪声产生，不会重复
True random number generator: generated by electromagnetic white-noise inside chip, no repeat.

应用 | Applications

- 电动汽车充电桩、电动汽车充电站、电动大巴充电桩、电动大巴充电站
Electric Vehicle Charging Points/Piles & Stations

性能指标 | Specifications

支持文件类型 FILE TYPE	支持包括二进制、定长记录、变长记录、循环记录、钱包记录等多种文件类型 Support binary system, fixed-length record, variable-length record, circulated record, wallet record and other type files
传输速率 TRANSMISSION RATE	106Kbit
工作效率 FREQUENCY	13.56MHz
工作距离 WORKING DISTANCE	0-10cm
支持算法 ALGORITHM	DES, 3DES, DES-MAC, SM1
8字节数据三重DES运算时间 OPERATION TIME OF 3DES 8 BYTES DATA	35ms/0.2ms 不包括通信时间 Communication Time Excluded
数据保持时间 DATA RETAINING TIME	大于10年 >10 Years
EEPROM擦写次数 EEPROM WIPING TIME	大于50万次 >500,000 Times
ESD接触/空气放电 ESD CONTACT/AIR DISCHARGE	4KV
工作温度 WORKING TEMPERATURE	-40~+65°C